The Lumleian Lectures
ON
CONVULSIVE SEIZURES.

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LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—I take for most particular consideration the second kind of fits, epileptiform seizures (middle-level fits); they were first described by Bravais in 1824. There are Varieties of epileptiform seizures. The convulsion begins in some part of one side of the body. Varieties are distinguished by the particular place of onset ("signal symptom" of Seguin) of the convulsion. The three commonest Varieties of epileptiform seizures are—(1) fits starting in the hand (most often in the thumb or index finger or in both); (2) fits starting in one side of the face (most often near the mouth, or in the tongue, or in both these parts); (3) fits starting in the foot (nearly always in the great toe).

Epileptiform fits most often begin in the animal parts of the body, and commonly in those of them which are the most animal. Thus the majority begin in the arm, and nearly all these in the most animal part of that most animal part, the hand, and most of them in the thumb or index finger or both—the most animal parts of the whole organism. Perhaps the term animal is awkward in this connexion; it is convenient in contrast to organic. We can, however, use other terms, and say that epileptiform seizures most often begin in those parts which, speaking popularly, have the most "voluntary" uses; in those parts which have great independence of movement; in those parts which have the greater number of different and more special (definite) movements, at the greater number of different intervals.

Although epileptiform seizures most often begin in the three most animal parts of the animal parts mentioned, yet as the fits go on the organic field becomes involved. In a dog poisoned by curara (respiration being artificially kept up) the animal parts are excluded, and then we see that by excessive discharges experimentally induced in its "motor region," effects are produced in, and are then limited to, the organic field.

There are Degrees of each variety corresponding to degrees of the "severity" of the excessive discharge. Degrees are to be considered with respect to two factors—(1) amount of convulsion, and (2) range of convulsion. I illustrate here quite arbitrarily by Range only, and take the case of an epileptiform fit starting in the thumb. Admitting that there are many ranges, it is allowable to make arbitrary divisions (they must not be taken for real distinctions) into four Ranges: (1) Terminal fit—the spasm involves, say, the hand, or some part of it only. (2) Monospasm—the arm becomes involved. (3) Hemi-spasm. (4) Bilateral convulsion—the second side being gained, the fit becomes universal. Observe the use of the word "become." In the range (4) there is a march of spasm from the part first seized all over the body, answering to increased spreading of the central excessive discharge beginning in some particular part of the motor region of the first half, and may be extending to the second half, of the brain. The second side of the body (in 4) is affected later, and commonly less than the first side.

From (1) to (4) there is but a single variety of epileptiform seizure in four different degrees. Otherwise stated, a man who has had convulsion of the range (1) or (2) does not become subject to another variety of epileptiform seizure when he has also fits which, beginning in the same terminal part (hand, we are supposing) have a much more extensive range, however much more extensive it is; so to speak, that patient is subject to *a* fit, and has in it different degrees on different occasions. However limited or however wide the range of convulsion, the corresponding discharge begins in the very same centre of the motor region of but one, the opposite half of the brain. This means that it is the place of onset ("the signal symptom") which localises; it points to the particular part of the "motor region" of the cells of which part the discharging lesion is made up.

I have often urged that the Clinical Problem in every nervous malady is of three elements: (1) Anatomical, (2) Physiological, (3) Pathological. In other words, we have in every case to seek (1) the seat of the lesion—the structure damaged, (2) to infer the kind of functional change of structure, and (3) to discover the nature of the abnormal nutritive process by which the alteration of composition of nervous matter producing the abnormal functional state of structure is effected. (*Vide infra.*)

Physiology.—Physiology deals with the dynamics of the organism—that is, with its function. I use the term function with regard to nervous diseases in a strict sense, and never in the way it or its adjective is used when applied to the symptoms of a hysterical woman, or to minute or transitory changes of structure.[1] I must now define the term. The function of organic matter and *par excellence* of nervous matter, to which I confine further remarks, is to store up energy,[2] to liberate that energy (nervous discharge) at different rates against resistances of different amounts; the energy liberated is dissipated or does work, or there are both consequences according as the resistances encountered are or are not overcome, or are only partially overcome. We have here to deal with abnormalities of this function—that is, with abnormal physiological states (I need not always add the adjective abnormal).

There are two kinds of physiological or functional states in cases of disease of the nervous system. (1) Function may be exalted, and is sometimes, as that of cells of a discharging lesion, very greatly exalted; these are superpositive functional changes—that is, hyper-physiological states. (2) Function may be diminished or lost; these are negative physiological or functional states—they are hypo-physiological states. Destructive lesions come in this category, although there is in them loss, not merely of function, but of the functionable material also. We shall have to speak later of a negative functional change in temporary post-epileptiform paralysis; that negative change (there is temporary exhaustion of nervous elements) is a direct result of the excessive discharge in the prior paroxysm; the two opposite functional states of the same nervous elements occur in immediate sequence.

There are degrees of negative function from defect to loss. Of these I will say nothing. There are two greatly different degrees, if, indeed, we may not say two kinds, of superpositive (hyper-physiological) function. We are concerned with both in this inquiry; it is imperative to distinguish them clearly. There is (*a*) the vast exaltation of function of cells of a discharging lesion. This degree is always produced by some pathological process—that is, by morbid nutrition, a nutrition which alters the composition of nervous matter. This, the first degree of functional change, is of a highly explosive character; it issues in paroxysmal discharges. There is (*b*) a comparatively slight exaltation of function with which we shall be particularly concerned when we consider post-epileptiform conditions. In these conditions, besides paralysis answering to a negative functional state of fibres of the second segment of the kinetic route, there are increased tendon reactions answering to a hyper-physiological state of this degree (*b*) of cells of anterior horns (lowest motor centres). For the present I shall speak only of the first degree (*a*) of superpositive functional states—that which is of a highly explosive degree, and is produced by a pathological process.

The hyper-physiological state (degree *a*) in epileptiform seizures is what I call a "discharging lesion." It is a crude hyper-physiological state just as its diametrical opposite, loss of function, is a crude hypo-physiological state. I continue to speak of healthy cells as stable; they are naturally unstable of course, but I mean by using the term stable that they are so *in comparison with* those of discharging lesions, which I speak of as being *highly* unstable. The discharging lesion is of a few cells which have got far above the rest of the cortical cells in degree of tension and instability of equilibrium. That lesion is made up of cells of nervous arrangements which represent some most special movements of a particular muscular region; the sudden and excessive development of these movements

[1] See an able paper by Dr. Allchin, Westminster Hosp. Rep., vol. ii.
[2] Assimilation of material having potential energy (anabolism); decomposition of material (katabolism) with liberation of energy.

from discharge of those cells is the convulsion incipient ("signal symptom" of Seguin), or, if there be no spreading of the spasm, it is the convulsion total.

The hyper-physiology of epileptiform seizures is the element of the threefold clinical problem of which we are sure. We are quite certain that normal movements are the results of liberation of energy attending katabolism; thus the inference is irresistible that that sudden and excessive development of many movements at once, which we call convulsion, must be a result of an excess of the same physiological process—of a sudden and excessive energy-liberation attending great and rapid katabolism. I will give illustrations of the different effects of discharges of stable cells (cells of comparatively low tension and of comparatively stable equilibrium) in normal operations, and of those of cells of a discharging lesion (cells of very high tension and very unstable equilibrium) in a convulsion. The aim is both to illustrate what was said in Lecture I. on the differences between movements proper and convulsion, and to emphasise that abnormal states and processes in disease are *departures from normal states and processes* by an illustration of departure by a vast excess from a normal physiological state; the term hyper-physiological keeps us well in mind that in convulsion there is such a departure.

It would be most absurd to say that there is a Buttoning Centre, but for convenience of illustration we may imagine such a centre. I illustrate by motor elements only, although, of course, sensory elements are concerned in all operations. In the operation of buttoning there are slight and slow discharges of normal stable cells (fibres are understood) of different nervous arrangements of our supposed centre (lower centres and muscles being understood) simultaneously and successively; in consequence there is a harmony and a melody of the different movements of the hand and arm by which the button is got into its hole. There is Harmony by Contemperation[3] of different movements, and there is Melody in that the compound contemperated movements follow one another at proper time-intervals; there is what is commonly called coördination, although the time-element (melody) is not much considered in most accounts of the process of coördination. So much for the discharges of stable cells in the operation of health.

Now, let us suppose that the cells of the buttoning centre become by some, any, pathological process, so highly unstable as to constitute a discharging lesion. (For the present we shall speak as if the excessive discharges of the highly unstable cells did not provoke similar discharges of stable cells of collateral centres.) The discharges are sudden and rapid,[4] and of all the cells nearly at once; they do not cause a speedy and vigorous act of buttoning, but a short, severe, and rapid contention of all the movements of that operation; this contention is convulsion of the hand and arm. There is no harmony and melody; on the contrary, in the tonic stage all contemperation is lost and all time-intervals are merged, so that there is but one rigid state of the musculature of the hand and arm, and, in the clonic stage, there is but a succession of such rigid states. There are no movements properly so-called in this convulsion; but, if I may use the word for once, there is first but a single big useless movement, and next a series of such so-called movements which do nothing but "mark time."

The illustration, although the supposition of a buttoning centre is grotesque, may render clear what presumably occurs when A. is "attacked by his convulsion." The convulsion is a brutal development of that man's own movements. I make this odd remark because I do not think that it is always vividly realised that an ordinary severe epileptic "attack" (to take that kind of fit for a moment's illustration) is nothing more than a sudden excessive and temporary contention of very many of the patient's familiar normal movements—those of smiling, masticating, articulating, singing, manipulating, &c. A convulsion is not something altogether *sui generis*. Speaking figuratively and more generally, and still of an epileptic paroxysm, there is the mad endeavour of the highest centres to develop the maximum of function of every part of the body, animal and organic, and of all parts at once; the phenomena of a very severe epileptic fit show that this endeavour is nearly successful; the patient is almost killed by the paroxysm, and is nearly dead (deeply comatose) after it.

I repeat that the cells which have become very highly "explosive" (those of the discharging lesion) continue to be elements of the same nervous arrangements, and that these nervous arrangements are still connected in the very same ways with the remainder of the nervous system[5] as when their cells were stable. Hence I do not speak of the highly explosive cells as being *in* any motor centre, but as being *of* that centre. I submit that the highly "explosive" cells of a discharging lesion will on their fulminating discharge overcome the resistance of, and thus produce excessive discharge of, collateral stable nervous elements. The epileptiform fit (excepting, perhaps, some slight terminal fits) is not the result only of the discharge of the cells of the discharging lesion, as was supposed for a limited illustration, when speaking of the imaginary "buttoning centre." Making a purely arbitrary limitation, we may imagine that the primary excessive discharge, that of the fulminate of the thumb centre, only produces directly the initial spasm, that of the thumb (the "signal symptom"); all the rest of the convulsion will be indirectly produced by it, by *compelled* excessive discharges of stable cells. Of these compelled discharges I shall speak again later.

It will now be seen why the term physiological fulminate is occasionally used. I use it in almost a literal sense; the discharging lesion is supposed to be a detonator of collateral stable cells, just as a fulminate (in the artillerist's use of the term) is of the comparatively stable gunpowder in a cannon. The only thing persistently physiologically abnormal in the patient we will call A. is that some few cells of his thumb centre have become fulminant. To speak figuratively, this "mad part" compels many collateral "sane" cells and cells of middle and lowest motor centres, and ultimately the muscles, to coöperate in its occasional and sudden excesses — makes them "act madly" for a time. If the few highly explosive cells, those of the discharging lesion, could be destroyed, the patient would be rid of his fits; he would lose nervous elements which are doubtless never of value for coöperation with the collateral stable cells in normal operations; he would lose cells of negative value and of positive injury—cells like those of an animal poisoned by strychnia, which on their discharge, run up movements into useless contentions. The cells of A.'s fulminate, when called on to coöperate with normally stable cells in any operation, function excessively, and so as, after the manner of a detonator, to cause wide excessive discharges of many stable cells. It is a pity that A. cannot be rid of these worse than useless cells; but I know of no way of effecting this riddance. There is the surgical question of cutting out part of the cortex.

I have in the foregoing used, regarding hyper-physiological discharges, the term "excessive," and, regarding the resulting convulsion, the term "severe"; the more excessive the discharge the severer the fit. I now use more precise terms, and consider this part of the subject as it was in effect, so it seems to me, long ago considered by Herpin. I regret greatly that my ignorance of physics renders me unable to deal with it adequately.

With regard to nervous discharges, or as I shall here say liberations of energy by nervous elements, we have to consider two aspects—quantity of energy liberated, and the rate of its liberation; the two varying factors both in normal and in "excessive" nervous discharges. With regard to the convulsion, we have to consider its degree, and the rate with which it is produced.[6] We have to study the amount of convulsion, the range of convulsion, and particularly the "deliberate" or "sudden" rate of onset. In two liberations of equal quantities of energy at different rates there is the same momentum or quantity of motion. But the force of the more rapid but shorter liberation of energy will be greater than that of the slower and longer liberation. Force only exists whilst it lasts; there is no doctrine of conservation of force. The more rapid the liberation of energy by a discharging lesion, the greater resistances will be overcome, the more numerous collateral stable elements will be com-

[3] Contemperation is, says the "Imperial Dictionary," an obsolete word. One of its meanings given op. cit. is, "The act of reducing a quality by admixture of the contrary."

[4] I do not mean by using the word rapid, here or anywhere, that nerve impulses travel more rapidly in the case of excessive discharges, but that more occur in a given time than is normal—that there is a greater quantity of motion in a given time.

[5] There is the obvious qualification that some nervous elements may have been destroyed by the same pathological process which also caused high instability of other elements, and thus that some connexions of the latter are cut.

[6] Herpin, in his valuable work on "Epilepsy," sums up several propositions as follows (italics in original).—"En résumé: *plus le début est long, moins la crise est violente, plus il est instantané, plus l'accès est intense.*"

pelled to discharge, and thus the more the amount of convulsion and the greater its range.

I suppose that there are degrees of instability of the cells of the fulminates in different cases of epileptiform seizures and at different periods of the same case. When A.'s fits "get worse" (greater amount of convulsion and greater range of convulsion), more cells may have then become highly unstable, or those already highly unstable may have become still more so; his fulminate becomes more fulminant, but that fulminate is made up of cells of the same part of the "motor region," if not of the very same cells. I now consider, it must be taken hypothetically, the differences of fulmination of discharging lesions. Let me suppose two cases, in each of which there is a discharging lesion constituted by cells of the thumb centre. In the patient A. the cells are (I am only able to distinguish vaguely) of lower degree of high instability (his fulminate is much less of a fulminate) than in the case of A. A. In both the first spasm is of the thumb. I shall mention the cortical discharges only; the sequent discharges of the lowest motor centres and of the muscles are to be taken for granted.

In A. the primary discharge, that of the fulminate, is deliberate, produces (secundo-primary) discharges of few collateral stable cells, and produces them slowly one after another; the corresponding convulsion sets in deliberately and spreads slowly; is of little range, (very local; for example, of the arm only), is of long duration, and there is an easily traceable distinct sequence over the range (all this, of course, comparatively with what occurs in the next case). In A. A. the primary discharge is sudden, produces (secundo-primary) discharges of many collateral stable cells, and produces them rapidly and more nearly at the same time; the corresponding convulsion sets in suddenly and spreads rapidly; it is of great range, is of short duration, and there is a less easily traceable distinct sequence over the range.

The more rapid, though the shorter, of the two primary liberations by the discharging lesions—supposing an equal quantity of energy to be liberated by each—will overcome greater resistances, and will thus compel discharges of a greater number of collateral stable elements; the convulsion produced will be both of greater amount and also of greater range. Lines of many different degrees of resistance will be overcome by such a primary liberation more nearly at the same time; the convulsion will more quickly attain its maximum at every part affected, and will be more nearly of the same degree in all parts affected..... Returning to epileptiform seizures, Compound Order is observed on a small scale in fits involving limited regions of the body (very well seen in the face), and on a large scale when such seizures become universal. There is a very intricate compound sequence from the beginning of the fit to its universalisation. I shall, however, make artificial separations, and say of a fit which becomes universal that excessive discharge beginning in some cells of a part of the right middle motor centres produces convulsion—(1) starting in the left hand and spreading up the arm and down the leg (first side), (2) involving both sides of the trunk, and (3) finally gaining the limbs of the right (second) side when all parts of the body are in convulsion together. That the left limbs are convulsed from discharge of the right middle motor centres, by intermediation of the first set of fibres of the second segment, is not doubted. I used to suggest that convulsion of both sides of the trunk and of the right limbs is also produced by discharge of that half by the second and (or rather as I should now say) third sets of fibres. This was rash. For, supposing that some convulsion of the second (right) side is *producible* by discharge of that one half (right), it does not follow that the convulsion which actually occurrs is *produced* by it alone. For my hypothesis of representation of both sides of the body in each half of the brain it would suffice if there were any degree of tonic or clonic convulsion of the right (second) side. For I only suppose that the right side is represented less than and subordinately to the left side, and also second in time in the right half. The subject is a difficult one. Horsley finds that when the corpus callosum is divided, excitation of the right (I continue to say "right" for convenience) middle motor centres produces epileptic convulsion of the left limbs only. In the case of dogs, Franck and Pitres found that artificially induced discharges of the right "motor region" caused universal convulsion when the left motor region had been extirpated and the corpus callosum divided. I quoted them to this effect in my third Croonian Lecture.[7] They, however, as I then said, attribute the universalisation of the convulsion to the pons, medulla, and cord (which together I call the lowest level).

Considering, then, the opinions of those who hold that the second and third sets of fibres, as well as the first set (all the fibres of the second segment of the kinetic route interconnecting the right middle motor centres with the lowest motor centres), end in the left lowest motor centres, the researches of Franck and Pitres and those of Horsley, and also the great complexity of the subject, I ought not to be dogmatic as to the process by which universalisation of an epileptiform convulsion is produced. Most likely in severe seizures the left middle motor centres are discharged, as Horsley supposes, after the right by intermediation of callosal fibres, although possibly some slight convulsion of the right limbs is produced from discharge of the right half alone by intermediation of the second and third sets of fibres. And most likely, too, the anterior commissures of the pons, medulla, and cord (intrinsic fibres of the lowest level interconnecting left and right lowest motor centres) are concerned. Probably the loss of consciousness answers to excessive discharges of the highest centres caused by the medium of sensory (upward) fibres. The process of universalisation of epileptiform seizures is a very intricate one, and deserves more precise analysis than I am capable of making.

I stay here to say that, taking the case of A. in illustration, when we have located his lesion we have done anatomical work only; when we have noted all we can about his convulsion (therefrom inferring that the lesion is a "discharging lesion" and the effects of its discharge direct and consecutive), we have done physiological work only. The experimenters on animals do the anatomico-physiological work thoroughly well.

Taking up again the case of A., we have now the third element, pathology, to consider. Here is the great difficulty. Being sure that A. has a discharging lesion of his thumb centre, there may be no evidence to show whether that lesion is produced (indirectly), by tumour or not. Here I urge again the necessity of distinguishing between the physiology and pathology of cases of nervous disease. Having urged that there is a degree or kind of functional change (*b*) which is not the result of any pathological process, I am all the more wishful to urge the distinction. I continue to speak of the first degree (*a*), and urge the distinction from this point.

It may be epigrammatically said, and with truth, that an epileptiform seizure is "only a symptom." Nevertheless it is always symptomatic of one *physiological* thing, a "discharging lesion." Otherwise put, an epileptiform seizure is not a symptom of tumour, of "softening," or of meningitis; it is a symptom of the one thing high instability of certain cortical cells, *however produced*—produced by any pathological process. Physiologically speaking, there is but one "cause" of epileptiform seizures—viz., high instability of some cells of some centre of the Rolandic region; but there are many "causes" of them if we mean pathological processes leading to that instability. So that in the case of A. (he being *subject to fits*), the question in pathology is not the vague one: "What is the *disease* of a certain part of his cortex?" but "What abnormality of the nutritive process has produced such an alteration in the composition of the material of cells in that part as to render them highly explosive, and how was that abnormality set up?" Or, more generally, and regarding all cases of epileptiform seizures (and epileptic, too), we put the question: "How are local persistent discharging lesions established and kept up?"

The first question is: "What is the most general nature of the abnormal nutritive process of cells of discharging lesions in epileptiform seizures?" This we ask ourselves, whatever the particular gross pathology or morbid anatomy, tumour, "softening," &c., may be in any case.

I have so often spoken on this subject that I will only mention the hypothesis that the nutrient fluid bathing the cells is comparatively stagnant, and that in consequence there is inferior nutrition. I suggest that there is "substitution nutrition," phosphorous compounds becoming more nitrogenous, or nitrogenous compounds more nitrogenous. I may illustrate by the well-known case of glycerine becoming explosive (nitro-glycerine) when some of its hydrogen is replaced by nitric peroxide. The Composition of this substance is altered, but its Constitution remains the same. It

[7] Brit. Med. Journ., March 29th, 1884.

may possibly be that the mass of the explosion of nerve cells, both in health and convulsion, is of non-nitrogenous matter, as is the case in the normal discharges of muscle. But the suggestion is that a nitrogenous substance is the "pivot" of the metabolism of nervous matter both in physiological and in hyper-physiological states.[8] I suppose the greater nitrogenisation of the material of nerve cells makes it highly explosive, but that the constitution of that material and the morphological structure of the cells remains the same. If this hypothesis be valid, there are presumably degrees of substitution (as there are in the three chloracetic acids, for example), and consequently degrees of high explosiveness. It may be that when a patient's fits "get worse," the original fulminate becomes more fulminant by still greater nitrogenisation, as well as that more cells become part of his fulminate. The abnormal nutrition leading to change of composition is a pathological process, whilst the high explosiveness it produces is a functional change. Surely it is the change of function which should be called a functional change. Whether these speculations be valid or not, it is a warrantable inference that the nutrition of the cells of the discharging lesion goes on, that it goes on wrongly, and that some material of the cells does become highly explosive.

Now I consider differences in sizes of cells with regard to their normal and morbid nutrition.

For theoretical reasons, and after the observations of Betz and Mierzejewsky, I suggested[9] that those centres of the motor region which especially represent small muscles (eyes, face, and hands) will have a greater number of small cells than those which especially represent the large muscles of the limbs. I think this is generally true of the "motor region." And I suggest that it accounts for the great frequency of onset of epileptiform fits in the hand and face, for reasons to be given presently. The "leg" centre contains many large cells, but it also contains some small cells. Bevan Lewis's researches, to which I am very greatly indebted, show that the parts of the motor region representing small muscles have most small cells. He says, and this bears on the remark I made on the leg centre: "That alongside the largest pyramidal cells are numbers of others of the *smallest* dimensions" (italics in original),[10] so that the discharging lesion of the "leg centre" may be made up of small cells.

Although it is convenient for some purposes to say "small muscles," the expression is not exact. For I urge once more that nervous centres do not represent muscles, but movements. I will substitute the expression "small movements" for "small muscles," and that of "large movements" for "large muscles." As these terms, the best I can think of, are vague, their meaning must be taken as defined here. Most of the movements of the hand are "small" according to the definition I now give of "small movements." The parts moved have little mass, and in most of the operations they serve in there is little more added mass. The muscles are small and numerous, and in most operations by the hand their movements are of little excursion, of short duration, and rapidly changing. Short, prompt, and frequent liberations of small quantities of energy will be required for these successions of "small" different movements; I submit that the nervous arrangements for these movements of the hand have small cells, and very many small cells. Most of the muscles of the shoulder are "large movements," according to the following definition. The muscles are large and few; there is much mass to move, the whole arm to lift, and the added mass is often great in some of the operations they serve in, as in lifting weights the hand takes up. In most operations they serve in, the movements are of large excursion, of comparatively long duration, and are comparatively little changing. They will require persisting and slow liberations of large quantities of energy by, I suggest, comparatively few and large cells.

A principle of representation is here in question; we have not only to do with sizes of cells, but also with numbers of cells, and therefore with the volume of different centres. Schroeder van der Kolk, illustrating by the case of the sturgeon, which has large muscles and few cells in its spinal cord, pointed out that there is not a mere relation between quantity of grey matter and size of muscles, but that the grey matter is greater in proportion to the complexity of movements of muscles. This shows that we have never to forget that centres represent movements of muscles, not mere muscular masses. I have several times drawn attention to Herbert Spencer's statements bearing on this question.[11] One remark he makes is, "In proportion to the number, extensiveness, and complexity of the relations, simultaneous and successive, that are formed among different parts of the organism, will be the quantity of molecular action which the nerve centres are capable of disengaging." Spencer takes count of both impressions and movements; I am illustrating by movements alone. The much greater volume of the middle motor centres is in accord with the fact that they represent vastly more numerous different movements than the lowest motor centres do; the muscles represented by both levels are the same, being in each case all the muscles of the body; hence the middle motor centres contain many more cells and fibres than the lower centres do. The supposition that parts having many small and greatly changing movements are especially represented by small cells and by many small cells, and that parts having but few and little changing ("tonic") movements are represented by large cells and by few large cells.

The size of cells is a very important matter with regard to their nutrition. Both in health and in disease small[12] nerve cells will be nourished more quickly than large ones when both are bathed in the same nutrient fluid. (From diminished nutritive supply the small cells will atrophy sooner than large ones.) The smaller cells will become highly unstable sooner than large ones during morbid nutrition. It certainly is the fact that most epileptiform seizures begin in parts having "small movements," in parts represented by areas of the cortex having most small cells.

Four hot iron balls will become cold much sooner than the same mass of iron in one ball having the same quantity of heat as the four balls together have. From discharge of four small cells which are together equal in mass to that of one large cell there will be, I submit, a liberation of energy in a shorter time than by the large cell, supposing equal quantities liberated in the two cases. Hence another reason for fulmination of the highly unstable cells of discharging lesions if these cells are small.

To repeat several hypotheses, Epileptiform seizures begin most often in parts of the body having "small movements;" these movements are represented by nervous arrangements having many small cells. Small cells present a more extensive surface to nutrient fluid than the same quantity of grey matter in large cells, and will be more quickly nourished than large ones are. Nerve cells become highly unstable from an abnormal nutrition; such that, although their structure and the constitution of their material are unaltered, that material becomes of more nitrogenous composition, and thus more explosive. Small cells become highly unstable more readily than large ones do; thus discharging lesions are supposed to be especially of small cells. A rapid liberation of energy overcomes greater and more numerous resistances than a slower liberation of an equal quantity of energy. Small cells liberate their energy in a shorter time than large ones; hence the currents developed by fulminates of small cells overcome greater and thus more numerous resistances than would fulminates of large cells, and hence produce more convulsion and greater range of convulsion.

We have assumed that the nutrition of the cells of the discharging lesion is continuous, and have supposed in effect that the nutrient fluid is comparatively stagnant. But how is this comparative stagnation brought about? This brings us to pathology, commonly so-called. We have to distinguish between what I may call the coarse pathology of a case and its immediate pathology.

[In the remainder of the lecture the production of discharging lesions by tumours and by occlusion of the cortical arteries was considered.]

[8] "Whether the chief product of the metabolism of any tissue be a proteid substance, or a fat, or a carbo-hydrate, proteid substance is the pivot, so to speak, of the metabolism, and nitrogenous bodies always appear as the products of metabolism" (Foster, "Physiology," pt. ii., p. 828.)

[9] Med. Press and Circular, Aug. 23rd, 1876.

[10] A Text-book of Mental Disease, p. 106.

[11] Psychology, second edition, vol. i., pp. 35, 55, 67.

[12] "Other things equal, the smallest cells will soonest become unstable. A mass of nervous matter in many small cells will 'present a much larger surface to the contact' of nutrient fluid than the same mass in a few large cells" (Harveian Lectures, "Med. Times and Gaz.," January 11th, 1879). My attention was first directed to this subject on reading Spencer's "Biology," where he expounds his theory of growth. A brief statement of Spencer's theory will be found on p. 220 of "The Evolution of Sex," by Geddes and Thomson, from which I quote. "In spherical and all other regular units the mass increases as the cube of the diameter, the surface only as the square." I refer the reader to Ross's great work, "Diseases of the Nervous System," vol. i., p. 12, where he deals with the significance of differences in sizes of nerve cells with regard to normal and abnormal nutrition and its consequences.

ABSTRACT OF THE

Gulstonian Lectures

ON

SOME CEREBRAL LESIONS.

Delivered at the Royal College of Physicians,

BY G. NEWTON PITT, M.A., M.D., F.R.C.P.

LECTURE I.

FATAL CASES OF EAR DISEASE.

IN making a study of cerebral lesions some are found to occur so infrequently that no one can have a very large personal experience of them, and in order to obtain any thorough knowledge of the various complications and the frequency with which they take place it is usually necessary for authors to collect the many cases scattered through current literature. These reports vary much in value, and they all labour under the great defect that they have been published because they illustrated some special point or on account of their rarity. Deductions drawn from such sources are therefore defective, owing to the omission of less striking cases. The alternative is to collect the experience of a large institution, such as a London hospital; the series will then be free from gaps, and it will be possible to form a much truer estimate of the disease as a whole; the disadvantage, of course, is that the number of cases is much more limited.

I have therefore confined myself to the unpublished records of Guy's Hospital, and among these have taken only those which proved fatal during their stay. I desire to express my appreciation of the kindness of my colleagues in placing their cases at my disposal, and I am more particularly indebted to Dr. Goodhart, who made a large number of the post-mortem examinations. I intend first to deal with the cases of ear disease which have proved fatal from the secondary complications they have set up in the cranial cavity. Two of the commonest complications to which they may give rise are cerebral abscesses and thrombosis of the sinuses. In my second lecture I propose to discuss the other causes of these affections, and to analyse the symptoms which were recorded. In my last lecture I shall examine the fatal cases of cerebral emboli and of cerebral aneurysms, which are for the most part included among them, as there are but few which are not due to this cause. I have examined the post-mortem records from 1869 to 1888, a period of twenty years, and have found fifty-seven inspections in which ear trouble had set up disease in the cranial cavity, which ultimately proved fatal. During this period there were nearly nine thousand inspections. No case of simple otitis media, with or without disease of the mastoid cells, was fatal during the whole of this period, and only twice was the fatal complication outside the cranial cavity, it being in one a retro-pharyngeal abscess and in the other hæmorrhage from ulceration into the internal carotid artery. The difficulties of diagnosis in ear disease are much increased by the fact that not only may a patient die without any otorrhœa being noticed, but in two instances the membrana tympani was found intact at the inspection.

Of the 57 cases, 34 were males and 23 females; the left ear was rather more frequently affected than the right. Seventeen of the patients were under ten, 17 were between ten and twenty, 14 between twenty and thirty, and only 9 over thirty. The acute symptoms in ear disease appear sometimes to come on spontaneously; at others, they have followed exposure to cold, a blow on the ear, mastoid suppuration, the introduction of foreign bodies into the external meatus, or the removal of a polypus. Any of these causes may start acute inflammation, which will be indicated by an increase in the otorrhœa if there be a sufficient outlet, but by a cessation of the discharge if the swollen mucous membrane blocks up the exit. If the pus is pent-up under tension, earache and headache will develop; but only those cases, in this series, proved fatal in which the inflammation had spread outside the petrous bone. The majority of the cases, if freely drained by opening up the mastoid cells, recover, and many of them ultimately discharge their pus externally without surgical aid. Toynbee thought that affections of the external meatus and mastoid cells produced disease in the lateral sinus and cerebellum, that affections in the tympanic cavity produced disease in the cerebrum, and that affections of the vestibule and cochlea produced disease in the medulla oblongata. As I shall show later on, thrombosis of the lateral sinus often has originated from caries of the posterior wall of the tympanic cavity, and mastoid disease sometimes spreads to the middle fossa of the skull; still, the usual sequence is that indicated by Toynbee. Disease of the internal ear appears usually to set up meningitis in the posterior fossa of the skull. Anatomical and post-mortem evidence have led me to the conclusion that the condition of the mastoid cells, and of the roof of the tympanum, and the situation of the lateral sinus, play the most important part in determining the direction in which the disease shall spread, and that therefore too great stress should not be laid on the presence or absence of disease of the mastoid, although it may be somewhat of a guide to the seat of the mischief. The condition of the wall of the middle ear teaches nothing which can be of assistance in diagnosis. The most convenient arrangement of the complications to be discussed will be according to their site: (1) dura mater, (2) cerebral tissue, (3) sinuses (4) pia-arachnoid.

Owing to the thinness of the tympanic roof, the dura mater over the anterior surface of the petrous bone is rather more often inflamed than that over the posterior wall of the middle ear, but less often if we include the part bounding the mastoid cells as well. The otorrhœa in these cases is of old standing; generally the bone beneath is inflamed, discoloured, carious, or necrosed, and in some of the cases the bone presented carious apertures, through which the infection had spread directly. Inflammation or sloughing of the dura mater occurred in ten out of twelve cases of temporo-sphenoidal abscess, and probably seven of these could not have recovered unless the dura mater as well as the abscess could have been allowed to drain. In extra-dural abscesses, which may produce optic neuritis, the inflammation has probably spread along the lymphatics around the veins. In three cases of mastoid disease which recovered after trephining, and one without trephining, there was optic neuritis.

Of eighteen cases of cerebral abscess, nine occurred on each side of the brain, and the preponderance which Gull and Sutton found in their twenty-four cases in favour of the right side was probably accidental. In the cases I am considering all of the patients were men, and thirteen of the cases occurred between the ages of ten and twenty-nine, the only case over forty being one of pontic abscess. They agreed with the general experience that otorrhœa does not set up cerebral abscess until it has lasted months or years, for in only two was its duration under a year. Three of the abscesses were in the cerebellum, one in the pons, two in the centrum ovale, and the remaining twelve in the temporo-sphenoidal lobes within a very short distance of the tympanic roof. The dura mater in this latter group was healthy in only two, in eight it was sloughing, in two inflamed, and in one there was a localised extra-dural abscess.

When there is healthy brain tissue between the temporo-sphenoidal abscess and the bone it is probable that the infection has been spread by the veins which empty into the superior petrosal sinus from the temporo-sphenoidal lobe on the one hand, and the tympanum on the other, by means of a septic phlebitis, or, more probably, by means of the perivascular lymphatics; for if it had been due to a phlebitis, thrombosis of the superior petrosal sinus would have been occasionally noticed. Frequently the brain adheres to the anterior surface of the petrous bone over which the dura is inflamed, and thence infection spreads by contact to the cerebral tissue. The two abscesses in the centrum ovale originated, the one from thrombosis of a vein from the Sylvian fissure to the dura mater, and the other from pyæmic infection due to an old septic thrombus in the lateral sinus on the opposite side. An extra-dural abscess behind the petrous bone started one of the cerebellar abscesses, and another had originated near the torcular Herophili from an old thrombus in the lateral sinus. Only five of the abscesses were less than an inch in diameter, while ten exceeded two inches. Death was preceded by coma in the majority of instances.

The following conclusions may be drawn from the present series of cases. Abscesses in the temporo-sphenoidal lobe, which is the most common situation, are often associated with an inflamed or sloughing dura mater over the anterior surface of the petrous bone, or with a collection of pus beneath it. Other complications are infrequent except meningitis, which is generally due to the extension or to the rupture of the abscess, which is almost always situated very close to the roof of the tympanum. A foul discharge is often a source of danger, and frequently, if not invariably, the spread of the mischief is due to imperfect drainage of the middle ear. Mastoid suppuration often infects the posterior surface of the petrous bone, but it may be associated with disease limited to the middle fossa of the skull. Cerebral abscesses only occur when the otorrhœa has lasted for months or years. The symptoms usually come on insidiously, being vague for a considerable time, which may be called the latent period; during this time headache, vomiting, and a slow dull mental condition are usually present. After a variable period the acute stage is entered upon, which may last less than a week; agonising headache is the most marked symptom, but it may not be noticed if the patient be very lethargic. The temperature is rarely high with uncomplicated cerebral abscess; it was not above the normal in six cases; in eight it was high, but three of these had meningitis, two thrombosis of the lateral sinus, and two marked lesion of the dura mater. The pulse is often increased in rate, but when the abscess is large it may become slow and irregular. Tenderness of the scalp was not especially noticed. Rigors and pyrexia are not frequent in uncomplicated cases, but they both occur occasionally. A headache of intense severity and a dull, sluggish mental state are the two most characteristic symptoms. Optic neuritis is but infrequently noticed, and is often in such cases due to a complication.

The three cases of cerebellar abscess presented no very marked signs. They appear to be less common, and will be probably found associated with disease of the dura mater behind the petrous bone or with thrombus of the sinus.

There is no evidence, pathological or other, that cases of cerebral abscess ever recover without the aid of a surgeon, and although a few successful cases have been drained, even now almost every one is fatal. The objects to be aimed at in treatment are—(*a*) In every case to improve the drainage of the ear by gouging away or trephining the mastoid sufficiently to open up the horizontal cells or antrum, where pus is often found, and to break a hole through the deeper part of the posterior wall of the external meatus, so as to allow no secretion to be retained. The cavity should be rendered aseptic as soon as possible, and in a case of otitis media this should be carried out as soon as there is evidence of a fresh accession of severe mischief; should further exploration be necessary later on, one great source of danger, the septic otorrhœa, will be much reduced. The external ear should be dressed apart from other openings, if any are made. (*b*) To expose the anterior surface of the petrous bone so as to allow free drainage for any pus or débris which may have formed in connexion with the dura mater, which is often inflamed or gangrenous. This is best reached at a point half an inch above the external meatus. Should there be any pus retained, some will often be found in the diploe of the bone removed, in which case the bone should be broken away to a quarter of an inch above and just in front of the meatus, so as to expose the most dependent part of the anterior surface (*c*) to drain the abscess from below when possible. In the case of a temporo-sphenoidal abscess, the area beneath which it will almost universally be found may be said to be bounded anteriorly and posteriorly by curved lines drawn through the temporo-maxillary joint and the middle of the mastoid, running at right angles to the sagittal suture and lying between half an inch to two inches above the meatus. The lower part of this area should therefore be explored with trocar and cannula after breaking the bone away, or trephining a fresh hole, unless special symptoms indicate that the abscess is higher. If the attempt to find pus is unsuccessful, the lateral sinus should be exposed half an inch behind the meatus and examined; if there is no extra-dural abscess and the sinus is healthy, the bone may be further broken away, and the outer and under part of the cerebellum explored for abscess. By this method all the likely seats for pus to accumulate can be systematically examined, and we give the patient the best chance. It is necessary to examine all these seats in doubtful cases, because, although in some uncomplicated instances we may be able to determine the lesion fairly definitely, yet where two or more lesions are combined the uncertainty in the diagnosis is so great that the best method is to explore all possible spots where pus may be collected.

Thrombosis of the lateral sinus occurred twenty-two times. The condition both of the wall of the vein and of its contents varied. In some there was well-marked phlebitis; in considerably more than half the thrombus was suppurating, and in others, where not breaking down, it had set up a pulmonary pyæmia, thus demonstrating its septic nature. The disease more often spreads from the posterior wall of the middle ear than from the mastoid cells; this is important, for any treatment to be successful must deal with the condition of the bone and dura mater as well as with the sinus. Whenever the mastoid vein, which perforates an inch and a quarter behind the meatus and on a level with it, is found thrombosed, the sinus should be explored. The clot may be a small one or it may occupy the whole of the sinus and spread into the internal jugular or general venous system of the skull. Thrombosis is a fatal lesion, but there is some evidence that patients with the typical symptoms appear to recover, at any rate for a time. The otorrhœa is generally, but not always, of long standing; in only five it lasted less than seven weeks. The onset is usually sudden, the chief symptoms being pyrexia, rigors, pain in the occipital region and in the neck, associated with a septicæmic condition. Earache, as distinct from headache, is more common than with meningitis and abscess; vomiting and coma were also met with. In no other complication are erratic pyrexia and rigors so constantly present, and it will be always justifiable to assume that they probably indicate thrombosis in any patient in whom freely opening the deeper mastoid cells and draining the ear have not been followed by their subsidence. Well-marked optic neuritis may be present, and is more suggestive of sinus thrombosis than of other lesions. The appearance of acute local pulmonary mischief or of distant suppuration is almost conclusive of thrombosis; and, as death in three-quarters of the cases ensues from pulmonary pyæmia after a course of but three weeks, treatment, to be of any value, must be directed to the prevention of the pyæmia. When such a danger has to be combated we must be willing to run great risks in order to save some of the patients. The internal jugular vein should be ligatured in the neck, the lateral sinus should be opened, and, if the clot be very foul and septic, it may be scraped out, rendered aseptic as soon as possible, and, if desirable, irrigated. In some instances it may be better to ligature the jugular vein low down in the neck, seal the wound, then ligature and divide the vein higher up, the upper end being brought out so as to allow any septic material that may pass down to escape externally. This line of treatment, which may seem too heroic, has been recommended by surgeons, and carried out successfully, and only some such method can avert the pulmonary infection which carries off these patients. This same treatment deals with the dura mater over the posterior surface of the petrous bone, which, if neglected, is a source of danger to nearly half its victims. If the lateral sinus, after it has been punctured, whether purposely or accidentally, be found to be healthy, thrombosis need not necessarily ensue. I have seen this happen three times, and no evil results followed, the patients dying from other causes.

SUBACUTE INDURATIVE PNEUMONIA.[1]

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IT is not intended on the present occasion to discuss the subject of pulmonary induration in its general bearings, the object of this paper being to consider the group of cases in which fibrous changes in the lung are the direct sequel of a more or less acute pneumonia. Contradictory opinions have been expressed concerning the termination of acute lobar croupous pneumonia in induration. Some authorities, among whom are Rokitansky, Buhl, Wilks, and Wagner, deny that the acute classical pneumonia ever passes into a

[1] Paper read at the Medical Society of London, March 24th.

chronic stage. Others, including Stokes, Charcot, Marchand, and Ziegler, hold the existence of this sequence of events as proved. Quite recently Dr. Coupland recorded in the Transactions of the Pathological Society, vol. xxx., a case of chronic lobar pneumonia which he regarded as illustrating the transition of croupous pneumonia into fibrous induration of the lung. Within the last few years this question has been reopened by Wagner,[2] Heitler,[3] Talma,[4] Hanau,[5] and Pal,[6] the general result of their observations going to show that the pneumonia which leads to induration is a special form, distinct from the acute classical type.

I propose now to describe shortly two cases bearing on this question.

CASE 1.—H. W——, aged forty-four, a cabman, was admitted into the Brompton Hospital on Nov. 29th, 1886, on account of shortness of breath and cough. Family history good. The patient stated that six years ago he had "inflammation of the lungs," and for years he had noticed a slight morning cough, but with these exceptions his health had been good until the present illness began. He admitted having drunk freely. Three months ago he was seized with sudden chills, weakness, and cough, and was confined to bed for two days. Since that time he had been ailing, with feelings of soreness in the chest, expectoration, shortness of breath, and night sweats, and three weeks ago he had an attack of diarrhœa lasting a few days. On Nov. 27th, three days before admission, his breath became shorter and his cough more troublesome, which he attributed to the recent fogs. The expectoration had never been rusty, but had been abundant throughout. On admission the patient was found to be a fairly well-nourished man. Respiration laboured and wheezing; complexion slightly yellowish; capillaries of the face injected. Pulse 126, large and dicrotous; temperature 103°; respiration 30 per minute. A superficial examination of the chest elicited dulness throughout the right side, with blowing breathing in the interscapular region, and sonorous rhonchi and small crackling râles were audible over both lungs. The diagnosis was acute pneumonia. A few days later dulness and loud bronchial breathing were present over the whole right lung, front and back, the adventitious sounds being less marked than at first. The sputum was abundant from the first, and shortly after admission it contained a little blood, but at no time was it rusty or characteristic of pneumonia. During the first twelve days the course of the disease was very uniform, and may be thus summarised: moderate pyrexia (the temperature generally varying from 102° to 101°, on two occasions rising to 103°), a frequent pulse (120 to 140), rapid respiration (40 to 60), and nocturnal delirium. Four days before death the temperature suddenly fell to normal, subsequently fluctuating between that point and 101°, and a small quantity of albumen was now discovered in the urine. The patient continued to take nourishment well up to the last, death occurring suddenly from syncope early on Dec. 16th.

Summary of the post-mortem examination.—The right pleural cavity was obliterated by soft adhesions. The left pleura was healthy. The heart weighed 14 oz., the right side being dilated; muscle generally pale and soft; valves healthy. Aorta very atheromatous. The right lung was solid throughout, the upper lobe of pale-grey colour with irregular pigmentation, the lobules being clearly marked out in places. Towards the apex there were two small cavities of the size of hazel nuts, surrounded by softened lung tissue. The lower lobe was red, granular on section, and softer than the upper lobe. The left lung was œdematous, one small calcareous nodule in the lower part of the upper lobe, but no other disease. The liver was large and fatty, the kidneys pale, and the spleen contained an infarct. The pia mater over the cortex was thickened. The brain and all other organs were healthy.

On microscopical examination of the right lung the red consolidation affecting the lower lobe was seen to consist almost exclusively of intra-alveolar products. The alveoli contained roundish masses of a coarsely granular opaque material, in which a few nuclei were visible. In places these plugs at their centre showed a delicate meshwork of fibrinous threads, and in rare instances consisted mainly of fibrinous matter. In every case, however, the alveolar plugs were ensheathed in a more or less complete investment of young connective tissue, separating them from the alveolar walls. These sheaths were composed of a faintly fibrillated layer of varying thickness, interspersed with scanty fusiform and round nuclei, and separated in most cases from the alveolar walls by a space containing desquamated epithelial cells, though here and there fusion had occurred. In many cases the sheaths in neighbouring air sacs were connected by delicate fibrous processes, in which occasionally a central fine opaque filament could be recognised, representing a communication between corresponding opaque alveolar masses. Scanty capillary blood-vessels could be traced in the intra-alveolar connective tissue capsules, and in some instances they were clearly connected with the capillary network in the walls of the vesicles. The condition of the alveolar passages or infundibula was very different from that of the air sacs. In almost every instance the infundibula were filled with recent fibrinous exudation containing a few leucocytes and red blood-corpuscles, without any connective tissue investment. The interstitial tissue showed a slight diffuse thickening, but this change was insignificant as compared with the intra-alveolar growth, and in the case of the alveolar walls the thickening consisted almost exclusively of a small-celled infiltration of no great dimensions. In the grey consolidation of the upper lobe, a more advanced stage of the same condition was found. The air sacs were stuffed with rounded masses of connective tissue, consisting of a central core of round and spindle cells, with a meshwork of delicate fibres surrounded by a more distinctly fibrous outer zone. Connexion with the alveolar walls had taken place in many but not in all instances, and only in a few vesicles could any pulmonary epithelium be discovered. Numerous capillaries were seen in the alveolar contents, especially in the more fibrous plugs. Traces of the opaque granular substance representing altered fibrin were with difficulty recognised in a very few vesicles, but no distinct fibrinous matter. The interstitial thickening was more pronounced than in the case of the lower lobe, but was relatively slight, so that the outlines of the alveoli could always be made out. The pleura was fibrous and thickened both over the lower and upper lobe. No micro-organisms could be detected in the sections examined. The muscular fibres of the heart showed no recognisable change.

CASE 2.—Thomas H——, aged fifty-one, potter's sampler, was admitted to hospital on Feb. 20th, 1889, under the care of Dr. Tatham, whom I have to thank for permission to publish the case. Family history good. The patient said that he had never had pleurisy, inflammation of the lungs, hæmoptysis, or rheumatism, and had enjoyed good health till the present attack. Three weeks before he "caught cold in the damp," but "took no notice of it at first." Soon, however, he began to suffer from cough, expectoration, shortness of breath, and slight shiverings; but the illness did not begin with a shivering attack. Shortly afterwards the expectoration became blood-stained. About a week ago "herpes" appeared on his lips. The patient had been confined to his bed almost from the first—i.e., about three weeks, but till then he had been at work. His wife supplemented this account by a statement that although her husband had not suffered from any cough or pulmonary symptom until three weeks previously, he had not appeared to be in his usual health for some short time. On admission, the patient was a spare, rather poorly-nourished man, with remains of herpes about the nose. Temperature 99°. Physical examination disclosed dulness on percussion over the whole right back, becoming absolute at the base, with weak breath sounds, indistinct crumpling and crackling râles, and feeble vocal fremitus and resonance over the same area. In front there was dulness from the fourth rib downwards, but the breath sounds were not altered. On the left side a few crackling râles were heard in the subscapular region, but no other abnormal signs. The diagnosis was "thickened pleura; (?) new growth." An exploratory puncture gave a negative result. The sputum, which was scanty and of a dirty greyish colour, contained no tubercle bacilli. The temperature was very irregular, generally ranging from 99° to 100°, but sometimes falling to normal for a few days. Diarrhœa was a troublesome feature throughout. During the first fortnight a temporary improvement took place, but towards the end of March the sputum became very foul and almost gangrenous in odour. About the same time albuminuria and enlargement of the liver appeared, the general condition began to deteriorate, and the physical signs in the chest underwent a change Tubular breathing and bronchophony were now heard at

[2] Deutsch. Arch. f. Klin. Med., Bd. xxxiii.
[3] Wiener Med. Wochenschr., 1884 and 1886.
[4] Zeitschr. f. Klin. Med., Bd. x.
[5] Ibid., Bd. xii.
[6] Fortschr. d. Med., 1888.

the angle of the right scapula, and at the left base dulness and crackling sounds had developed. Putrid expectoration and albuminuria persisted, and with œdema of the legs, hectic fever, increasing dyspnœa and prostration, the patient sank on May 9th, four months after the onset of his illness.

Summary of the post-mortem examination.—Right lung adherent to the chest wall throughout by dense fibrous adhesions. The lower lobe posteriorly converted into a large cavity with ridged walls, but smooth lining membrane of dirty red colour, containing a putrid brownish fluid. The anterior part of this lobe much contracted, of whitish colour and very tough. Middle lobe of coal-black colour, tough, and quite airless. Upper lobe large, œdematous, irregularly pigmented, and very firm, but the consolidation was not quite uniform, patches of aerated lung tissue alternated with foci of induration. Interlobar septa greatly thickened. The left lung was loosely adherent throughout. The lower lobe closely resembled the right upper lobe, showing the same marbling and patchy consolidation, with a few minute foci of softening in the midst of some pinkish-grey patches of consolidation. The upper lobe marbled and œdematous, with a few ill defined, stellate, blackish, fibrous patches here and there. The inter-lobar septum was thickened slightly. The bronchial mucous membrane presented a dull livid colour, but there was no dilatation of the bronchi in either lung. In the larynx there was one small ulcer over the right "processus vocalis." In addition the following morbid conditions were found: parenchymatous nephritis, with slight amyloid disease of the glomeruli, amyloid degeneration of the gastro-intestinal mucous membrane, and nutmeg liver.

Microscopical examination of the lower lobe of the right lung showed a firm fibrous growth which had obliterated all traces of the pulmonary structure. The middle lobe exhibited a well-marked condition of chronic interstitial pneumonia—viz., fibrous thickening of the alveolar walls and of the inter-lobular, peri-bronchial, and peri-vascular tissue. In the right upper lobe and the left lower lobe there were numerous patches of small-celled exudation into the alveoli and bronchial tubes with foci of necrosis, and scattered fibrous thickening, peri-bronchial and peri-vascular. The laryngeal ulcer showed no tubercular character, and no tubercle bacilli were found in its floor or in the contents of the pulmonary cavities.

The first was clearly a case of lobar pneumonia terminating in induration, the induration being the result of organisation of a fibrinous alveolar exudation. Microscopically, all stages in the process of organisation could be traced, the appearances closely resembling those described by Dr. Coupland and other observers. The pathogeny of the disease is less evident. A consideration of the history seems, however, to prove that this was not an instance of acute classical pneumonia; for although the sharply defined onset, with rigors, cough, and prostration, reminds one of the latter disease, the constitutional disturbance was too slight and transitory to justify us in adopting this view. According to the patient's express statement, he was only confined to bed for two days, though feeling ill afterwards, which fact alone would suffice to preclude the existence of acute sthenic pneumonia. The clinical course of the disease and the anatomical condition of the lung warrant the description of the case as one of a subacute progressive indurative pneumonia.

In the second case, in which the patient came under observation three weeks after the attack began, the onset of symptoms, though not so acute as in the first patient, was nevertheless clearly defined, and the illness was sufficiently severe to compel him to keep his bed from the first. In contradistinction to the previous case, the indurative process here was essentially interstitial. In both instances the pneumonia was lobar. In both, necrosis occurred in the indurated tissue without the intervention of bronchial dilatation, but excavation developed at an earlier date and played a more important part in the last case. Putrescence of the cavity secretions, no doubt, will account for the development of secondary broncho-pneumonia and putrid bronchitis, which, in combination with nephritis, must be regarded as the direct cause of death.

For clinical purposes the two cases may be grouped together, agreeing as they do in many important particulars, especially in their subacute progressive character and in their termination in induration. At the same time the different localisation of the fibrous growth may depend on a difference in etiology; but as to the exact cause of this form of pneumonia nothing as yet is known. In Hanau's case, bacteriological investigations were not attended with any positive result. The question whether acute croupous pneumonia ever leads to cirrhotic changes is a difficult one to answer; and, in the absence of any decisive bacteriological or other test for the presence of this disease, we cannot expect the solution of the difficulty at present. It is probable that this sequence of events is far rarer than some authors state, and Heitler hints with considerable probability that some cases at least of pulmonary induration, gangrene, or abscess that have been recorded as depending on acute sthenic pneumonia were really specimens of the subacute indurative variety now under consideration. Wagner and Heitler both point to the fact that in the acute classical pneumonia signs of infiltration may persist for months, and finally be succeeded by perfect resolution, as showing that the pulmonary exudation is not possessed of any specially irritant properties. Among those who have done most to differentiate the indurative form of pneumonia Heitler certainly deserves the chief credit. His two papers, based upon five cases, contain most valuable remarks on the pathology and diagnosis of this disease, which he prefers to call "primary parenchymatous pneumonia," adopting a term suggested originally by Buhl.

A review of the cases lately recorded establishes the following facts, most of which have been emphasised by Heitler. The patients attacked were, as a rule, free from previous pulmonary disease, though in one or two instances evidence of chronic alcoholism was obtained. The development of the disease is more or less acute and well defined, the symptoms being fever, dyspnœa, cough, prostration, and frequently, though not always, rigors; but the constitutional depression is much less marked than in acute pneumonia. In Hanau's case the onset was very insidious, though, as the patient was demented, this observation does not invalidate the general truth of the previous statement. Pyrexia is irregular and of moderate degree, the temperature rarely exceeding 102°. The sputum is not rusty, and commonly becomes putrid as the case progresses, owing to the supervention of necrotic changes in the lung, and is then almost a conclusive proof of the presence of cavities, even in the absence of other signs. Retraction of the chest wall has been seldom observed; but, according to Heitler, when it occurs it is pathognomonic. The absence of this sign probably depends on the subacute course which nearly all the cases ran. The consolidation is lobar, or may invade the whole of one lung, in which case the different lobes are apt to be involved in successive stages.

Necrotic excavation of the lung is very common, the cavities being ragged and gangrenous, or encapsulated, according to the duration of the case. Secondary septic broncho-pneumonia and putrid bronchitis are apt to supervene from inhalation of the contents of the cavities. Bronchial dilatation is either absent or slight. Thickening and adhesion of the pleura are invariable. The cases end fatally from dilatation of the right heart and cardiac failure, septic infection, or renal complications. All the cases now referred to have succumbed in periods varying from five weeks to nine months, but it is probable that the disease may become partially arrested and lapse into a very chronic stage. Some of the instances of pulmonary cirrhosis or chronic pneumonia that we meet with would certainly bear this interpretation.

Heitler goes at great length into the subject of diagnosis; but reference to the cases recorded by other observers demonstrates that some of the differential points on which he insists would not have given much assistance in some instances. If the patient should be seen at an early period, it may be difficult at first to exclude acute pneumonia in the stage of resolution; but, as Heitler remarks, the progress of the case would soon decide the point. For in this affection the physical signs and general condition change rapidly, which is not the case in the indurative type. More difficulty is likely to be experienced in diagnosing the present form from acute croupous pneumonia in the stage of retarded resolution, but in the latter case, as the same author points out, the general condition steadily improves and the temperature declines, in spite of the persistence of pulmonary consolidation. In the indurative type, on the other hand, the temperature keeps up, and the constitutional state gradually, but steadily, deteriorates. The sharply defined onset of the disease would almost exclude any form of tuberculosis, but the development of putridity of the sputum, coupled with the absence of tubercle

bacilli, would leave little room for doubt on this score. The absence of any previous chronic disease of the lung should preclude the existence of bronchiectasis or abscess.

In conclusion, we may affirm the existence of a subacute lobar pneumonia distinct from the acute classical type, characterised by a tendency to fibrous and necrotic changes in the lung. The indurative process may be mainly or exclusively interstitial, it may be repre-sented wholly or in part by organisation of an alveolar exudation, or it may comprise both of these lesions. It is possible that these anatomical differences imply a corresponding difference in etiology; but further analysis is not as yet in our power, and, for clinical purposes, both forms may be included under the title "indurative pneumonia," which indicates the characteristic feature common to each.

SCIENTIFIC STUDY OF THE CONDITION OF CHILDREN IN SCHOOLS.

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I PROPOSE to consider the possible value of accurate observation of facts seen in children in schools, as a means of aiding the solution of educational problems and assessing the value of educational work and certain possible means of improving it. It is needless to argue that public benefit has resulted from the employment of scientific methods in connexion with sanitation, food supply, manufacture, travelling, &c., while some training in science is now thought necessary for the workers in many trades. In education the teaching of science subjects is justly valued as a means of producing mental culture. The professions of law, the army, and art do not ignore aid from science; why should not the professional teacher have the benefit of precise knowledge as to the bodily and brain condition of his pupils—the material upon which he works? There is at present but little accurate scientific observation of children in schools, from the point of view of ascertaining their special adaptations to and requirements in education. It remains for our profession to systematise the scientific study of children from the point of view of methods of education, and to put such results before teachers and others responsible for national and private education. In systematising such scientific work as it may be conducted in a large school, without use of the processes of the consulting-room, only methods of observation by sight can conveniently be employed. What signs shall we note, and what relative value is to be assigned to each? Looking upon a body of children as pupils in a school, we would wish to classify them according to their (1) development, (2) nutrition and physical health, (3) brain condition. The grosser forms of low development of the body have many times been ably described by many authorities on imbecility, and the relative value of various defects of skull, the features, &c., has been fairly determined; all these may be seen in less degree in school children. I will not dwell further on this group of signs now. As to indications of the brain condition, these may be observed with equal facility by noting the balance and action in the various mobile features and parts of the body. Having previously fully described these signs in works published,[1] I will not attempt even to epitomise them here; they may easily be learned by any observer; but, like all new physical signs, they require some moderate degree of application to recognise them. It is not, however, my desire at present to urge any one system for use in observing children in schools, but to dwell on the importance of obtaining scientific knowledge as to the physical and brain condition of our school population. The late Royal Commission on Blind, Dumb, and Exceptional Children could obtain no body of statistics as to pupils in school, showing how many were defective or feeble in brain, ill-developed, ill-nourished, nervous, mentally dull, or epileptic, &c. There are 6,000,000 children in schools under the control of the Education Department. How many are unfitted for education under the code, who are of low-class make, the percentage of nervous children in the schools, and the distribution of each class? These are questions worthy of investigation. The effects of education and various modes of teaching upon the brains of the children can only be determined by actual observation in the schools. We have large bodies of statistics bearing upon disease, its causation and distribution, and upon pauperism, crime, non-employment, &c., but there is no body of facts founded upon extended observation of school children showing their condition, and its bearing upon the adult population of the next decade. What is wanted is a careful investigation conducted by observation of the children along definite lines, as well as by inquiry of the teachers. It is only by an extended body of facts obtained in various schools and in different localities in town and country that the average condition of children can be known. I think, from my own observations, that there are more nervous, over-mobile children in London than in northern towns, and fewest cases among the resident pauper schools, while the latter and certified industrial schools contain a high percentage of low conditions of development. At present we have no standard to go by, no average of the conditions we desire to remove. It is desired by all educationists that educational methods should be adapted to the special requirement of the school. The corporate character of a school depends upon the percentage of the different classes of pupils present; similar methods are not adapted for a school with 10 per cent. nervous children, and 1 per cent. of cranial abnormalities, as compared with another school with 2·7 per cent. nervous children, and 4·1 per cent of cranial abnormalities. (Compare in report quoted Stockwell Practising School and Hanwell National School.) The efforts of a few medical men have produced a report[2] of the condition of nineteen schools containing about 6000 children; this illustrates, better than any summary I can give here, the kind of information that such inquiry may elicit, and the uses to which it may be put. The study of pathology and clinical diagnosis must precede scientific treatment, and we need some exact knowledge of the condition of samples of the school population before science can take its proper place in directing education, or give due service to the State by advice upon many of the practical problems put forward by the educationist for solution.

Prince of Wales-terrace, Kensington Palace, W.

[1] The Children: How to Study Them. F. Hodgson, 89, Farringdon-street, E.C. Lectures on the Growth and Means of Training the Intellectual Faculty. Cambridge University Press.

NOTE ON A CASE IN WHICH THE ILIUM WAS TREPHINED FOR ILIAC ABSCESS.

BY A. F. MCGILL, F.R.C.S.,
PROFESSOR OF SURGERY IN THE YORKSHIRE COLLEGE.

THE following note shows the good effect which may follow trephining the ilium in suitable cases. Cases of this description are not, however, common. The practice may be expected to be useful when a collection of pus exists under the iliac fascia, and when this collection is circumscribed and limited to the fossa. Pus in this position, when left untreated, will probably pass under Poupart's ligament, and point in the upper part of the thigh extended to the femoral vessels, thus simulating psoas abscess. If they are now opened, or if they burst, a long sinus will be left which will take a considerable time to heal. The direct opening made in the case about to be mentioned apparently avoided this complication, and led to a speedy cure. Possibly this treatment may be of use in cases of abscess in the iliac fossa above the fascia; but I think this is doubtful. The experience of one case is not of much value, but as the treatment adopted is novel, it is given for what it is worth. I am indebted to my house surgeon, Mr. J. J. Mitchell, for the following notes.

C. A——, aged eighteen, was admitted into the Leeds Infirmary, under the care of Mr. McGill, on May 6th, 1889, complaining of pain in the right iliac region and right thigh. In 1884 Mr. McGill excised her right hip-joint for disease of long standing. She recovered quickly after the operation,

[2] Report of a Committee of the British Medical Association on Observation of Children in Primary Schools. Published by the Cambridge University Press.

and had been able to walk long distances without pain or discomfort until three weeks before admission. She then became feverish, lost her appetite, felt ill, and was seized with violent pain in the right hip and thigh. She was confined to bed, and, as the symptoms increased in severity, she was brought to the infirmary.

On admission, she was seen to be a well-nourished and healthy looking girl. There was a large scar over the right hip at its posterior aspect, but there was no sinus or fulness in this position. She complained much of pain, which extended downwards from the hip to the knee. This pain was not aggravated by moving the thigh. No fulness or special tenderness could be found in the iliac fossa. Her temperature varied from 99° in the morning to 101° or 102° in the evening. A small weight was placed on the leg, with the effect of somewhat easing the pain. Her condition remained unchanged for three weeks, when deep fluctuation was detected in the right iliac fossa. On May 27th this was aspirated, and six ounces of sweet pus were withdrawn. Aspiration was repeated on May 30th, and four ounces of pus were removed.

On June 4th, the temperature being still hectic in character, Mr. McGill opened the abscess above and behind the anterior superior spine of the ilium. A considerable quantity of pus, which could not be measured, escaped. On passing the finger into the abscess cavity a piece of the iliac fossa the size of a sixpence was felt to be denuded of periosteum. Over this spot, situated five inches below and behind the anterior superior spine, a transverse incision was made, dividing the skin and glutei muscles down to the bone. A three quarter-inch trephine was applied, and a portion of bone this size, including all that was bare of periosteum, was removed. The abscess cavity was thoroughly scraped in all directions, and freely irrigated with a solution of perchloride of mercury. A drainage-tube large enough to fit exactly into the trephine opening was inserted, and the wound above the iliac crest was closed with sutures. A large antiseptic wool dressing was applied.

The after-progress of the case was in every way satisfactory. There was a copious serous discharge, which necessitated frequent changes of the dressings for forty-eight hours. The temperature dropped to normal on the second day, and never again reached 99°. On June 21st a small tube was substituted for the large one, and on July 1st this was removed. On July 4th, a month after the operation, the wound had entirely healed. She left the infirmary shortly afterwards, and was seen at the end of October perfectly well and doing her work as usual.

Leeds.

TWO CASES OF

CHEYNE-STOKES RESPIRATION IN CHRONIC BRIGHT'S DISEASE,

IN ONE OF WHICH THAT SYMPTOM WAS RECOVERED FROM.

BY LAWFORD KNAGGS, M.C. CANTAB.

THE interesting case communicated to the Clinical Society by Dr. Samuel West, and the question by Dr. S. Mackenzie as to whether any Member of the Society had seen a case of Cheyne-Stokes breathing, not due to brain injury, that had recovered, encourage me to record the following cases. At the time the first case was the only one of chronic Bright's disease in which I had ever seen Cheyne-Stokes respiration occur without some obvious cerebral injury, and the only instance that I was aware of in which that symptom had been followed by recovery. The second case occurred shortly after, and the two together present such a combination of interesting facts that they seem worth recording, either as a contribution to our knowledge of chronic Bright's disease, or of Cheyne-Stokes respiration, or of family proclivity.

CASE 1.—W. E. S——, aged fifty-six, a farmer, had been, so far as he was aware, a healthy man till he took cold at the end of March, 1889. He had been seen by two different medical men, and placed under my care by one of them. On April 2nd, when I saw him for the first time, his condition was much the same as it had been for three or four days. His chief complaint was "shortness of breath," and that he could not get any sleep. He had Cheyne-Stokes respiration of a most marked character. The pauses measured twenty seconds, and these were followed by from thirty to forty respirations, being shallow and slow at first, becoming deeper and deeper and quicker and quicker, and then gradually waning until they ceased. He was propped up with pillows in an upright position, and during the pause he would fall into a doze, from which he was roused by the hurried breathing, which evidently distressed him greatly, and caused an intense feeling of dyspnœa and impending suffocation. Good respiratory murmur could be heard all over both lungs. There was a soft cardiac murmur at the apex (which was normal in situation), but whether of endo- or peri-cardial origin was a little uncertain. Beyond this there were no abnormal physical signs. Urine: sp. gr. 1018; albumen one-quarter to one-third; no sugar; small uric-acid crystals and epithelial and granular casts in abundance. Under half-drachm doses of paraldehyde ordered three times a day, but not given quite so often, he speedily got good sleep, and the Cheyne-Stokes respiration disappeared gradually but completely in the course of three or four days. He seemed to be doing well. The tendency to sleep, however, increased until on the 10th and 11th of April it deepened into stupidity, and finally into semi-coma, from which he could be roused and made to give unintelligent answers. Vigorous but not very successful efforts had been made to produce free purging with compound jalap powder, elaterium, and white mixture in large and repeated doses, and on the 11th and again on the 12th one-third of a grain of pilocarpine was injected under the skin, and followed by vomiting and free sweating. He now began to improve, the uræmic symptoms gradually passed away, his mental state was completely restored, he had good nights, and was not drowsy during the daytime; his appetite was good, and his bowels acted well. The quantity of urine passed in twenty-four hours had been fairly constant throughout (about forty ounces), but the quantity of albumen began to diminish at the beginning of May, and remained at about one-tenth. Pulse 72. He began to get up early in May, and got downstairs about a fortnight later. He wished to go out of doors, but the weather was too treacherous for the idea to be entertained. During the whole of May and the first two weeks in June his condition was extremely satisfactory, and he gained flesh and strength. Whit Monday, June 10th, was remarkable for a very bitter damp east wind, and it is probable that he caught cold on this day. At my next visit I noticed his pulse was quicker, and the amount of albumen largely increased. He was sent to bed and kept there, as he thought unnecessarily, and gradually the albumen diminished. The week preceding July 15th he had had a little wheezing at night and been troubled with flatulence, but on that day he was better; pulse 102. On July 16th there was a violent thunderstorm which seemed to have an extraordinary effect upon him. He was very excited by it, and afterwards the breathing got worse and the respirations became irregular. Pulse 120. The paraldehyde was repeated. On the 17th he had had a restless night. Pulse 120. There was Cheyne-Stokes respiration, the paroxysms lasting forty seconds and the pauses ten seconds. Many of the respirations were of equal depth. During the paroxysms he was very restless, but said he felt quite well except for the short breathing. On the 18th he was better, having had a more comfortable night. The respiratory spasms were made worse by excitement and worry. On the 19th he was cold, with pallid lips and Cheyne-Stokes respiration. He was much the same on the 20th, but on the 21st, after a better night, the breathing was much quieter. The respirations were rhythmically irregular and there were no pauses, and the periods of laborious breathing were short. Pulse 100. On the 22nd rhonchi were present over both lungs. On the 23rd there was slight improvement. He had had a good night. Cheyne-Stokes breathing came on occasionally at intervals of several hours. There was a soft to-and-fro pericardial sound at the apex, and also a systolic endocardial murmur. On the 24th there were tracheal râles, and he passed his urine involuntarily. Mentally he was tolerably clear. The tongue was dry and brown, and respiration again rhythmically irregular, but without pauses. On the 25th he was semi-comatose, but could be roused to say he was "pretty fair"; the evacuations were passed involuntarily, and on the 26th the coma deepened and he died.

CASE 2.—The interest of W. E. S——'s case does not stop here. During the course of his illness his sister, Mrs. S——, aged forty-six, living near, came under my care for some

temporary chest condition set up by a cold. She also was passing urine of low specific gravity, and containing about half of albumen and numbers of granular casts. She was soon convalescent, and the albumen diminished to about one-sixth, where it remained stationary. She was eventually allowed to get up, but after a time complained of attacks of difficult breathing at night time. Tired of her confinement, she ventured out one day for a drive, caught cold, and became very ill. This occurred when I was away for my holiday, and my brother, Mr. Frank Knaggs, who watched her through her illness, has kindly supplied me with the following particulars:—The attacks of shortness of breath were now of frequent occurrence, and at short intervals. Their duration was about from a minute to a minute and a half, and they were characterised by an increased rapidity of breathing. There was nothing in the condition of the chest to account for them. The albumen increased in quantity. She gradually lapsed into a semi-comatose condition, which in a couple of days deepened into coma; and it was then noticed for the first time that the breathing had gradually assumed the Cheyne-Stokes character. Two days before her death, which took place on Sept. 1st, 1889, she remained in a comatose state, with well-marked Cheyne-Stokes respiration, but as the end drew near the pauses became more and more prolonged.

The points of interest in the two cases are these:—1. The most striking symptom was in one case Cheyne-Stokes respiration, and in the other a disturbance of the respiration, which, as it increased, developed the Cheyne-Stokes character. 2. The connexion between excitement and the aggravation of the Cheyne-Stokes breathing was clearly shown in the case of W. E. S——. It was remarkable how the mental effect produced by the thunderstorm seemed to initiate the irregular breathing, which was the forerunner of this symptom. The onset was so sudden that a messenger was despatched for me as soon as the storm abated, and at other times subsequently to this the breathing was made worse when he became excited or worried himself about some business matter. 3. Sleep always had a very beneficial influence. The effect of the paraldehyde in the first illness was rapid and encouraging, and, as good sleep was obtained, the respiratory paroxysms were mitigated, and in a very few days the breathing had assumed a natural character. This natural character of the respiration was retained throughout the period of uræmic drowsiness and semi-coma, which gradually supervened upon the period of restlessness with Cheyne-Stokes breathing. In the last stage of his final illness, when the comatose state once more set in, the Cheyne-Stokes breathing again disappeared, the nearest approach to it being a rhythmical irregularity of the breathing. To the best of my recollection, in other cases, in which I have seen Cheyne-Stokes respiration, the phenomenon has usually been present when coma has been well developed. And this appears to have been so in my second (Mrs. S——). 4. It is interesting to note that the fully developed phenomenon was in each case led up to more or less gradually by intermittent irregularities of the respiration. 5. I have spoken of W. E. S—— as a case in which recovery took place after Cheyne-Stokes breathing had been present. Objection may possibly be taken to this, as death took place about three months and a half after the first attack had disappeared. It may, I think, be fairly regarded as an instance of recovery. The organic disease necessarily rendered life very precarious, and the convalescent state into which he got in May and the early part of June was as satisfactory a recovery as could be expected, when the renal mischief was so advanced. He was able to spend the greater part of the day downstairs, to transact such business as he could do in-doors, to enjoy his meals and sleep well; and he expressed himself as feeling as well as ever he did in his life, although well aware of the serious nature of his complaint. 6. Finally, though it was an interesting coincidence that a brother and sister should develop chronic Bright's disease almost at the same time, it is significant that a symptom so rare in Bright's disease as Cheyne-Stokes respiration should be present in both. The highly nervous and timorous disposition of the sister, and the association of the condition in the brother with mental emotion, its disappearance in his case during coma, the benefit produced by sleep, and, finally, his recovery from the first attack, are facts that favour to some extent the supposition that the Cheyne-Stokes phenomenon may occasionally be determined by the presence of a neurotic predisposition.

Leeds.

OPERATION FOR BADLY UNITED FRACTURE OF FEMUR FIFTEEN MONTHS PREVIOUSLY.

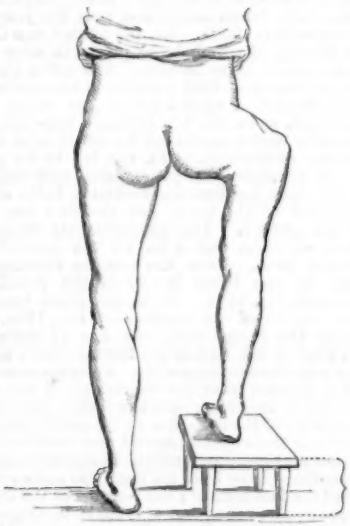
BY C. D'A. COLLINGS, M.A., M.B. OXON., M.R.C.S.

THE treatment of badly united fracture of the femur of old standing is often so disappointing that the following case may be of interest from the satisfactory result obtained by prolonged lateral elastic traction on the upper fragment, combined with extension of the lower fragment, after chiselling through the bones at the seat of faulty union.

T. P——, a sailor, a healthy-looking man, about thirty years of age, was admitted into hospital at the beginning of January, 1889. The history he gave was that several years previously he had fallen down the hold of a vessel and broken the left thigh, but under treatment the bone had united satisfactorily, with only an inch or two of shortening, and that after being somewhat lame for a time he could walk again as well as before until the time of the accident to his right leg. (The only remains of the old fracture of the left femur was somewhat of an anterior curvature about the middle of the thigh.) In November, 1887, he again fell down the hold of a vessel when in the Baltic, and this time fractured the right femur somewhere near the junction of the upper and middle thirds. He was treated in a German hospital in Russia, the limb being placed in some sort of wire splint for about three months. The union not being satisfactory, in January, 1888, an incision was made down to the bone, the end of each fragment, according to the patient's account, sawn off, but the ends were not wired, and, after being under treatment for about nine months longer, he was discharged, with the leg in its present condition. On admission, the patient could only walk with crutches, the right leg hanging useless a little distance outside the line of the body, and the foot five or six inches off the ground. The measurements were found to be — Heel of right foot 6 in. off the ground when the pelvis was level. From the anterior superior spine of the ilium to the lower border of the patella—left leg, 18 in.; right leg, 13 in. From the great trochanter to the lower border of the patella—left leg, 17 in.; right leg (following the femur along the line of deformity), 15 in.—i.e., 6 in. to the seat of the fracture and 9 in. from the seat of the fracture to the patella. From these measurements it was inferred that the shortening of the femur, which could not be remedied, was two inches, and that the further shortening of the limb, due to the faulty position in which the ends of the bone had united, and which might be remedied, was from two to three inches. The movements of the hip-joint were found to be free; the knee was quite stiff; the movements of the foot limited; the position of the foot was that of talipes equino varus, but this could be almost completely remedied by slight force. The patient could move his foot and toes, though not freely. Along the outside of the thigh, over the prominence of the deformity, was a scar from four to five inches long and over one inch wide at its broadest part, the whole of the scar being adherent to the bone beneath, and over the prominence was an ulcer, due to the chafing of his trousers. The deformity appeared to be due to the upper fragment having had its lower end drawn outwards and to the front, the upper end of the lower fragment having been drawn up to the same spot, but there was so much thickening about the bones at the seat of the deformity and the ends had become so moulded that it was impossible to make them out distinctly. The patient was offered the alternative of an amputation at the thigh, or that an attempt should previously be made by refracturing the bone to improve the position of the leg and get the foot close enough to the ground to be of some use. He chose the latter alternative.

On January 9th, with the assistance of Mr. Le Page and Mr. Robinson, the patient was anæsthetised and the adhesions in the knee-joint were broken down, considerable force requiring to be used. The limb was then rendered bloodless by Esmarch's band and tourniquet. An incision was made through the scar over the prominence about two inches in length and the scar dissected off the bone, it being impossible from the scar being adherent to do the osteotomy subcutaneously. A ¾-in. carpenter's chisel was then applied to the most prominent part of the

bone, and hammered cautiously with a mallet in an inward direction till felt to be in the softer central part of the bone, when it was withdrawn and driven in towards the anterior surface of the bone in the same plane, then towards the posterior surface. On withdrawing the chisel and pressing the limb outwards with the line of incision fixed as the fulcrum, the hard bone on the inner side was easily snapped and the limb could be bent inwards and rotated apart from the upper fragment; it could not, however, be drawn down away from it, nor could it be bent much outwards. This appeared to be due partly to the firm contraction of the muscles and tissues on the inner side of the leg and partly to the locking on the upper fragment. A wedge-shaped piece of bone was therefore sawn off this, and a probe-pointed curved bistoury, passed into the wound round the anterior and then round the posterior surface of the bone, was made to cut through the fibrous tissues around it as far as was deemed safe without endangering the large vessels. Considerable traction being then made on the foot, the position of the limb judged by its inner aspect was found to be greatly improved, while the traction was maintained, though the upper fragment still remained in its previous position and its lower end could not be forced inwards, owing apparently to the contraction of the glutei. No spray was used during the operation, but the wound was constantly washed out with a 1 in 1000 per



chloride of mercury solution, and after the operation about three drachms of a saturated solution of iodoform in ether was syringed into it; the wound was dressed with lint soaked in carbolic oil and the limb put up in a MacIntyre splint. The following day the morning temperature was 98·2°, evening 100°, after which it never rose above normal during his stay in the hospital. The day after the operation the limb was taken out of the MacIntyre splint and an extension apparatus fastened to it, ten pounds weight being used, and the foot of the bed raised four inches, the heel being one inch off the bed, and the calf steadied by sandbags. The wound was syringed daily with iodoform dissolved in ether and dressed with carbolised lint; there was very little discharge from it, and it healed in three or four weeks. On Jan. 14th, elastic traction was commenced on the upper fragment by a broad piece of adhesive plaster fastened round the thigh just above the wound, both ends of it being carried under the left thigh and attached to a stout indiarubber tourniquet fastened to the left side of the bed, and attached when stretched so as to get considerable elastic extension inwards and slightly backwards on the lower end of the upper fragment. On Jan. 19th the foot extension weight was increased to 13lb., 2 or 3lb. of which were probably taken off the limb by the support of the sandbags; the foot of the bed was further raised to eight inches. On Feb. 14th the sandbag supports were discontinued, so as to get the entire weight for extension. On March 25th the limb was examined with gentle movements. There appeared to be no adhesions in the hip-joint. Union had taken place between the chiselled ends of the bone, the limb moving as a whole up to the hip-joint. The adhesions were firm throughout the knee-joint, with thickening around it. There was a considerable amount of hard callus at the seat of fracture, and the limb appeared nearly straight, the femur operated upon being straighter than the other one. Extension and lateral traction were continued as before. April 25th: On examination, the right leg was found to be only from an inch and a half to two inches shorter than the left leg, and quite straight; the bony thickening about the seat of operation had diminished, and the femur felt quite sound and firm. The patient could move the right leg off the bed nearly as well as the left. The extension apparatus was discontinued. On May 1st the patient was anæsthetised with the object of breaking down the adhesions about the knee-joint and restoring its mobility; but, on partially flexing the knee, the patella still remained fixed on the condyles of the femur, and a depression formed below its lower border, with rapid effusion in the neighbourhood below the patella. It was found impossible to move the patella from its adhesions to the femur directly, and further force only increased the rupture of its ligamentous union to the tibia. The patient was therefore put to bed and evaporating lotions applied. Within a fortnight the swelling had subsided, and he could lift the foot off the bed with comparative ease. For the next two or three weeks he got about on crutches, after which he was allowed out, using two sticks, the limb being rather less than two inches shorter than the other. He was discharged on June 10th. His report the following November was that he could walk comfortably several miles without a stick though he generally uses one. The lameness seen in his gait is not very noticeable considering the shortening.

Guernsey.

CASE OF

GANGRENE OF THE SCROTUM; RECOVERY.

BY FREDK. W. GIBBON, L.R.C.P., L.R.C.S., L.S.A.

J. M——, aged thirty-five years, a master plumber, of robust frame, good family history, and of a healthy constitution, active and temperate habits, came under my care on Feb. 1st, 1889, suffering from laryngeal catarrh, attended by the ordinary symptoms. No especial fever or disturbance of the general system beyond increased huskiness of the voice and tickling of the fauces, supposed to have been brought on by cold whilst working overnight in a ship's hold. I ordered him to bed, and attended him until the 24th. On the 18th, however, he complained of hæmorrhoids. I did not examine for them, but simply ordered hot fomentations and a dose of castor oil, presuming that they were due to costive bowel and his lying up. On inquiry the following day they were better, and I heard nothing more of them during my attendance. On March 4th, however, he came to my consulting room, and informed me that he had taken another "bad turn with the piles" three days previously, and "that morning whilst at the closet felt something pricking at the back body, and, putting his hand down, drew from it a piece of stick." This was an inch and a half in length, with a sharp point, and most resembled a spike from a hawthorn tree. I take it to be a fish-bone of an unusually large size. I sent him home to bed, put him on light milk diet, and gave him an opiate. I had an urgent message to see him next day, as he was seriously ill. I found him in bed,

with deep cellulitis of the left buttock, extending from the margin of the anus on the same side. His tongue was furred; great thirst. Temperature 99°; pulse 100·4; respiration 36. He complained of great heat at the back of the body. I applied a lotion of lead and opium to the parts, gave a full dose of quinine, and thirty-minim doses of liq. ferri

every two hours. His pulse went up to 108; respiration 48; temperature 100°, rising and falling until March 9th. The cellulitis made a marked improvement, softening, yet spreading to the right buttock; and he continued to improve under treatment until the 8th, at 10 P.M., when I noticed a thin red line running along the median raphe, and the scrotum slightly enlarged, not painful, but erythematous. I took the precaution before leaving for the night to suspend the scrotum in a flour-bag, and promised to see him early next day. I failed to do so until 4 P.M. The scrotum was then the size of a child's head, and black gangrene had set in. I learned that his scrotum had commenced to swell at 4 A.M. and continued until I saw him. He did not complain of much pain, had no difficulty in passing his urine, and his stools were normal, but this was attended by marked typhoid symptoms. I called into consultation Mr. G. E. Williamson, surgeon to the Newcastle-on-Tyne Infirmary, and the scrotum was freely laid open, most fetid gas escaping on the incisions being made, and a boggy swelling from which ichorous pus exuded was opened over the tuber ischii, which on examination was found to extend upwards and inwards in the course of the rectum, although no fistulous opening could be detected or any opening from or into the bowel.

I continued the quinine and iron, and applied charcoal poultices to the parts, frequently washing with a solution of boro-glyceride, until the sloughs came away. The erysipelatous inflammation passed upwards to the abdomen as far as the umbilicus, and a gangrenous patch appeared in the right groin, midway between the spine of the pubis and anterior superior spinous process of the ilium. On the 23rd the temperature was 102·4°; pulse 84; respiration 26. I opened up this patch, letting free a quantity of pus, and passed a drainage-tube through to the opposite side, making another free incision where I detected pus. Another patch of gangrene appeared in the median raphe on the 27th; this I also opened up.

The whole of the scrotum came away, attended with frequent hæmorrhages, which gave a little trouble, leaving the testes exposed and the urethra intact. I now commenced to use chloride of zinc; but this caused so much irritation that I discontinued it next day, and used boro-glyceride until healed. The large surfaces exposed induced me to graft, all of which were successful, and the patient made so much improvement that he was able to be out of bed at the fourth week. During the whole attendance I paid particular attention to his dieting and medicine, having due regard to the great amount of erysipelatous inflammation I had to contend against. I have implicit faith in the boro-glyceride on account of its cleanliness, its non-irritant properties, and because I have always found discharges lessened by its usage—in fact, in all operations in which I have used it I have had unqualified success, and am confident nothing could have brought about such a speedy termination of the case.

Remarks.—The uniqueness of the case may account for my giving details in their entirety. It is difficult to understand how so large a foreign body could have been swallowed unconsciously, yet to my mind the peculiar tickling of the fauces was the first symptom of its presence. There was no history even of a fish dinner. There is no doubt that it punctured the rectum, and the fæces and fæcal matter passed along, taking a course similar to that in extravasated urine, and resulting in gangrene of the entire scrotum.

Tyne Dock.

CHILDREN'S HOSPITAL, BRISTOL.—The work accomplished during the past year exceeded that of any previous twelve months. There were 753 children admitted. Of these, 385 were medical and 368 surgical cases. The deaths were 37, giving a mortality of 4·97. The special ward for measles had been utilised to great advantage. The numbers occupying the women's ward were considerably more than in past years, and the attendance at the out-patient department also showed a very large increase. The additional work done in the course of the year had involved an expenditure much beyond any previous year, and, with no corresponding augmentation in the income, there was a cash deficiency on the year of £448 10s. 10*d.* due to the treasurer.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF PRIMARY HYDATID OF LEFT LUNG.

BY FRANK NICHOLSON, M.D. LOND.,
PHYSICIAN TO THE HULL ROYAL INFIRMARY.

G. D——, a labourer, aged forty-four, was admitted under my care in the infirmary on July 2nd, 1889. He stated that he had had good health all his life, with the exception of "low fever" twenty-five years ago, when he was ill for three months. His present illness commenced nine weeks before admission, but he kept at work till June 27th. For nine weeks he had been complaining of anorexia, loss of flesh and strength, and for seven weeks he had had a slight cough. Five days before admission he had a severe pain in the left lumbar region, which still continued, and the cough was much worse, but there had been no shivering, sweating, or hæmoptysis. On admission he was a good deal emaciated, and had a bad cough, with copious muco-purulent expectoration, and he complained much of a severe pain in the left loin, which was worse on taking a deep breath. On physical examination there was marked dulness over the lower two-thirds of the left chest posteriorly, with feeble breath sounds and diminished fremitus; in front there was no dulness, but the breath sounds above the clavicle were harsh. On the right side the physical signs seemed natural. The heart appeared healthy, and there was no increased area of dulness or displacement. Neither the liver nor spleen seemed enlarged, and the abdominal organs appeared healthy. The temperature was 98·4°. A hypodermic needle was inserted into the ninth interspace posteriorly, but with a negative result. For the next six days the patient remained much the same, the temperature being 98·4° each morning and 100° to 101·4° each evening. The physical signs continued the same, so a hypodermic needle was again inserted (but higher up) in the seventh interspace, and it filled at once with thick pus. Looking upon the case as one of empyema, the surgeon of the week was asked to make a free incision. This was done the same day over the spot where the needle had been inserted, but with negative results. Nothing further was done for seventeen days, by which time the wound had healed, but the patient still continued to cough up a great deal of muco-purulent expectoration; the temperature was normal every morning, and varied between 99° and 101° each evening. On July 25th the patient stated that he felt distinctly better, and for three days his temperature had been quite normal both morning and evening. The physical signs were, however, as on admission, so a hypodermic needle was again inserted (a space higher) in the sixth space posteriorly; it filled at once with a perfectly colourless fluid containing a few whitish flakes, which was free from albumen, contained much chlorides, and, under the microscope, numerous echinococci and hydatid membrane. During the procedure the patient began to cough, and brought up in ten or fifteen minutes about two ounces of watery fluid stained with blood. It was obvious the needle had opened up a communication with the bronchial tubes. The temperature rose that evening to 102·5°, but quickly fell, and remained normal till his discharge on Aug. 15th, when he was coughing very little, and the expectoration was only slight. There was, however, yet a good deal of dulness at the left base posteriorly, and the breathing was feeble.

A few months later we heard that the man was well and at work, and not coughing at all. I may add that throughout no evidence of the existence of hydatid in the liver or elsewhere was discoverable. At first I did not recognise the nature of this case, but this is scarcely ever possible unless some of the cysts have been coughed up, or fluid containing echinococci has been withdrawn by syringe. I looked upon it, on admission, as a case of empyema. The history fitted in with this view; the physical signs were those of fluid at the left base, and the withdrawal of a drachm of pus seemed to clench the diagnosis. But a free opening into the chest by my surgical colleague failed to give exit to any pus. When later the

nature of the case was certain, it appeared to me that the hydatid was situated in the lung immediately beneath the pleura, that it had given rise to acute pleurisy a few days before admission, and that there had been a small localised empyema, which we struck with the hypodermic syringe on the first occasion. It is not common to meet with two separate hydatid cysts in the lung; hence the idea that there were two cysts, one of which had suppurated, does not appear nearly so probable as the view I have taken.

I may add that I was much struck by the amount of muco-purulent sputum, and in a reported case some months ago I noticed this also was mentioned, but without any importance being attached to it. It is possible it may be of diagnostic value, though I find no reference to its frequency.

Hull.

THE ARSENIO-FERRIC WATER OF LEVICO.

By W. WYNN WESTCOTT, M.B. LOND.,
JOINT AUTHOR OF THE "EXTRA PHARMACOPŒIA."

THE district and town of Levico, situated in the Tyrol, near Trient, have a rising reputation as health resorts for invalids, and the adjacent mountain side has two springs which have long been known to possess valuable curative properties. Recent analysis has shown that the water of both of them is strongly ferruginous, and also contains an important proportion of arsenic; the mild water contains eight grains of iron per pint, and $\frac{1}{10}$th of a grain of arsenic, while the strong contains thirty-four grains of iron and one-twelfth of a grain of arsenic per pint. It becomes at once apparent, then, that we possess in these waters valuable medicinal agents. The waters are clear and colourless, and are not unpleasant to take: they command a very large distribution in Austria, Germany, and Russia, and have very recently been introduced into England. The physicians of the Continent have expressed themselves very strongly upon the merits of Levico water as an hæmatinic tonic and alterative, and it is extensively used both in hospitals and in private practice. I have now tried the waters, especially the mild, in a considerable number of cases, and several medical friends have reported to me their own experience. Levico water is extremely susceptible of assimilation; it agrees with almost every stomach if given in doses of one or two tablespoonfuls after meals three times a day. I have not met with any cases in which it disordered the stomach or otherwise upset the patient. A little water, or beer, or wine and water may be taken after it; even coffee appears to be suitable. Speaking generally, I should recommend Levico water to be tried in cases of simple anæmia, chlorosis, general debility, and chronic skin diseases, psoriasis especially. In the anæmic states produced by exhausting discharges, scrofulous abscesses, uterine hæmorrhages, leucorrhœa, &c., I have observed a marked effect. The waters are imported in bottles containing half a pint, twenty doses of one tablespoonful each, so that they are not expensive medicines. There is no other natural water containing both iron in full doses and arsenic, for La Bourboule, which has been notable as an arsenical water, contains no iron, and Royat has only a trace of either constituent.

Camden road, N.

A PURPURIC RASH IN INFLUENZA.

By C. A. LOCKE, M.R.C.S., L.R.C.P.I.

VARIOUS rashes have been described in connexion with the present epidemic of influenza, but I have seen no mention of anything approaching the purpuric type. The following are short notes of three cases which have lately come under my notice.

CASE 1.—H. D——, aged twenty-six, a railway porter, a delicate looking man, but with no organic disease. Illness commenced on Nov. 24th, 1889, with shivering pains in the back and limbs and across the eyes. He continued at work, and on the evening of the 25th he had to walk a distance of ten miles. He was very tired, and his legs, especially the right leg, ached severely. While undressing that night he noticed some spots on his leg, for which he sought advice on the 26th. Down the front of the right leg there were five irregular spots varying in size from a shilling to a threepenny-piece, as well as numerous smaller ones, of a dark slate colour, level with the surrounding skin, not scaly, and not disappearing on pressure. The spots faded in a few days, and a fresh crop appeared on Dec. 7th, which in due course also disappeared. The patient was greatly prostrated, and did not return to work until Dec. 27th, the right leg remaining weak some time after the other limbs had recovered their usual strength.

CASE 2.—A. P——, aged forty-two, collier, a big healthy man; seen Jan. 13th. Had the usual influenza symptoms, and on the right forearm one typical spot of purpura about the size of a sixpence, which had appeared on the third day of the illness. He volunteered the statement that he had "jarred" his arm in an ineffectual attempt to strike a fellow-workman the day before he was taken ill. He had also been much worried about his domestic arrangements for some weeks previously.

CASE 3.—H. T——, aged eight; seen Jan. 4th, 1890. A pale, weak, little boy, with a mitral murmur at the apex. The child had had "a bad cold," with back pain and frontal headache for two days. When washing him on the third day his mother noticed a rash over the abdomen and chest. On examination the rash proved to be purpuric, the largest spots being the size of a shirt button. The spots faded quickly, being all gone in five days.

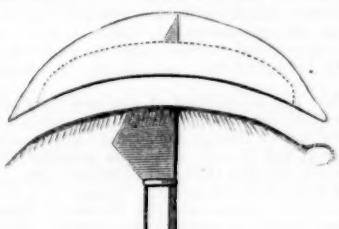
I also remember seeing a case of purpura at University College Hospital three or four years ago, where the patient had a severe "cold," which was possibly a sporadic case of influenza. These three cases were unmistakably influenza, and the rash was as unmistakably purpuric. The rash may belong to the class of symptomatic purpura that is sometimes associated with the acute specifics, and in the case of the child the cause may have been the faulty heart. In Case 1, the fact that the right leg was the most painful before the rash, and remained weak the longest, may perhaps point to the strain put on the leg by the patient's long walk as a cause, while well in the depressing course of the disease. In Case 2 the nervous depression might count as a factor in the etiology as well as the "jarring" of the arm.

Rotherham.

A NEW OPERATION FOR THE RELIEF OF ENTROPION OF THE UPPER EYELID.[1]

By THOMAS EVANS, M.R.C.S.,
OPHTHALMIC SURGEON TO THE SYDNEY HOSPITAL, N.S.W.

THE various operations designed for the relief of distichiasis and entropion of the upper eyelid may be classified as follows: first, those in which the whole or a part of the cilia are removed; secondly, those in which the row of cilia is transplanted and a portion of the skin of the lid sacrificed; thirdly, those in which the cilia and a bridge of skin taken from above them are made to exchange positions.



Position of knife when uniting the two incisions in the cartilage. The dotted line shows the upper edge of the separated wedge of tissue.

To the second class belong the operations of von Arlt and von Graefe; to the third those of Dianoux, Watson, Junge, and many others. The method I am about to describe cannot be placed in any of these classes. The cilia are not transplanted, but the direction of their growth is altered. No skin need be sacrificed unless the operator pleases, and a mechanical obstacle consisting of cartilage prevents the return of the cilia to their abnormal position. It is simple and effective, it never shortens the lid or interferes with the folds of skin, so necessary from a cosmetic point of view, and a month after, save in a faint linear cicatrix, and

[1] A portion of a paper read at a meeting of the Medical Section of the Royal Society of New South Wales, on Dec. 20th, 1889.

in the altered direction of the cilia, no traces of operative interference remain. A Snellen's clamp is applied to the lid, care being taken, before the screw is tightened, to stretch the skin upwards, and so tilt the margin of the lid forwards. With a Beer's knife the tarsal cartilage is split along the whole length of its free edge, up to a distance of two millimetres from the puncture, and to a depth of about four millimetres. An incision is made through the skin and connective tissue of the lid, parallel with the row of cilia, from three to four millimetres above it. The surface of cartilage exposed is cleared from connective tissue and an incision is made into it, through about a third of its thickness, parallel with the lower edge of the skin wound and from two to three millimetres above it. The point of the knife is inserted through the first wound in the edge of the cartilage, and brought out at the middle of the second incision in it, above the cilia. Carrying the knife in the same plane, the incisions are connected in their whole length. Thus the row of cilia and a piece of the tarsal cartilage are separated from the lid except at each end. A section of the separated tissue would appear wedge-shaped, the edge of the wedge upwards. The wedge of tissue is then rotated so that the edge of it points downwards and inwards, and is in contact with the eyeball, while the row of cilia points outwards and upwards. The skin wound is united with three or four fine sutures, the clamp removed, and an ordinary dressing applied. The sutures should be removed about the third day. The measurements mentioned are only approximate, and must vary with the thickness and size of the lid to be operated on.

I have ventured to describe this as a new operation. I apply the epithet "new" with a certain amount of diffidence. Whether it be so or not the central idea of it—namely, the rotation of the wedge-shaped bridge of tissue and the complete alteration in the direction of the cilia which it effects—is the outcome of my observation of and practice on many a score of cases of entropion during the last ten years.

Sydney, N.S.W.

THE GARIEL AIR-BALL PESSARY AS A PLUG IN ABORTION.

By J. CHALMERS ROBERTSON, M.B., C.M.

I WISH to call the attention of practitioners to the use of the Gariel air-ball pessary as a plug in early abortion. The idea is not original. I saw it casually mentioned some years ago in one of the medical papers, but, as far as I can ascertain, few are aware of the advantages of this instrument. In those cases where the ovum is not completely detached, and is, moreover, out of reach, and hæmorrhage more or less alarming is going on, the best results follow the use of the air-ball pessary. The ordinary process of plugging by pledgets of wool or by prepared tampons is laborious and precious time is lost. On the other hand, one can introduce the air-ball pessary and inflate it in half a minute; the upper vagina is most effectually plugged, and the patient can be left with safety for a couple of hours or more. The presence of the pessary is a powerful excitant of uterine action, and one usually finds at the next visit the ovum detached and lying on the top of the pessary. I have used this instrument on several occasions, and always carry one in my obstetric bag. Before insertion it is well washed with a solution of corrosive sublimate, and then smeared with an antiseptic lubricant.

Wandsworth-common, S.W.

STRANGULATED INGUINAL HERNIA COMPLICATED WITH DOUBLE HYDROCELE AND RETENTION OF URINE.

By G. BELBEN FLUX, M.D.

ONE day in November of last year I was called at 3 P.M. to see a man aged seventy-two, who could not pass his urine. On arrival, I found the patient in bed, with stercoraceous vomiting and very collapsed. His bladder was distended nearly to the umbilicus, the scrotum was enormously enlarged, and the penis was to be observed as a mere dimple. The fluid in the scrotum extended right up to the external abdominal rings. There was no impulse on coughing, and the distended scrotum was dull and translucent. The right cord was obscured, but appeared to be thickened.

The urine was drawn off with a flexible silk catheter without difficulty. Then with a small trocar I removed about a pint and a half of fluid from the left hydrocele. The right side still being translucent and dull, and giving a sensation of fluctuation to the touch, it was also punctured and about a pint of clear straw-coloured fluid withdrawn. The fluid being removed from both hydroceles, I found on the right side an inguinal hernia, evidently strangulated. Taxis for a few minutes failed to reduce the bowel, and was then given up temporarily; the patient vomited less during the night and slept for some hours. In the morning taxis was again tried and was at once successful, and the vomiting ceased entirely. Three days later, during violent coughing, the hernia again descended and became strangulated, well-marked stercoraceous vomiting again coming on. Chloroform was administered and the bowel was returned at once. The vomiting ceased immediately, and the patient improved rapidly. A suitable truss having been obtained, the patient recovered, and was able to resume his ordinary work as an agricultural labourer.

Highworth.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

THE LONDON HOSPITAL.

A CASE OF TETANY IN PREGNANCY, WITH NEPHRITIS AND CANCER OF THE PYLORUS; REMARKS.

(Under the care of Dr. HERMAN.)

THERE are many points of interest in this case, which we give at some length. The occurrence of tetany as a complication of pregnancy is unusual. With regard to the influence of nephritis in the mother on the life of the child, Cohn[1] estimates the mortality as 87 per cent., due to endarteritis of the placenta, with death of the connective tissue. For the report of the case we are indebted to Dr. Hugh Smith, resident accoucheur, and Messrs. A. Bullied and A. Halliday Smith, clinical clerks.

J. M. J——, aged thirty, first menstruated when fourteen years old; has always been regular; quantity moderate; no pain. Was married at eighteen; six children, two miscarriages; last confinement a year and ten months ago. Morning sickness in each pregnancy, but in no previous one beyond the third month. Labours easy; free hæmorrhage afterwards. Suckled each child fourteen months. Never had any kind of fit. Expected to be confined at the end of January. During this pregnancy she suffered from vomiting, not limited to the morning, often eight or nine times in the twenty-four hours. During the last four or five months there have been loss of appetite, constipation, and wasting; and she has had cramps in the calf of the left leg. In other respects she was well until Dec. 9th. She then noticed in the morning that the thumbs were drawn into the palms of the hands, and the fingers were stiff. The hands felt numb and tingled, and she was unable to use them. The wrists were bent, and the hands fixed with the palms downwards. Both hands were affected alike. After about an hour the hands became less stiff, but on attempting to use them the spasms recurred. During the spasms of the upper extremities there was some stiffness and numbness of the feet, but only momentary inability to move them. There was some stiffness at the back of the neck, which was slightly drawn back, and the back and sides of the head were numb. Similar spasms recurred throughout Dec. 10th, 11th, and 12th; more persistent on the latter day, and about 4 P.M. she was admitted.

On admission, both hands and forearms were in tonic spasm. Elbows flexed, but flexors in upper arm not rigid.

[1] Sajous, vol. ii., part 12.

Forearms strongly pronated. Hands flexed at the wrists and drawn towards ulnar side. Flexor tendons in wrist (especially the flexor carpi ulnaris) and palm prominent and firm. Thumbs drawn into palm, opposing fingers, phalanges extended. The little fingers partly flexed at metacarpo-phalangeal joint, phalanges extended. Other fingers more flexed at metacarpo-phalangeal joints, and less flexed at the inter-phalangeal joints. Great resistance to attempts at extension. Feet not affected. Knee-jerks present on both sides; no ankle clonus. No unusual position of the head was noticed. At 7 P.M. the fingers freely movable, but hands still flexed and drawn to the ulnar side, and forearms pronated. Flexor tendons at wrist still rigidly contracted. At 9 P.M. patient could extend arms, forearms, hands, and fingers, but flexor tendons at wrist remained prominent on doing so. No numbness. Trousseau's phenomenon could not be produced.

The patient was apathetic, silent, complying with directions given and answering questions, but slowly and as if with difficulty. She was not greatly emaciated. Not anæmic. Tongue dry and brown. Slight sordes about gums. Nothing abnormal on ophthalmoscopic examination. No œdema. Breathing slightly hurried. Pulse 104. No abnormal chest signs. No evidence of past rickets. Uterus four fingers' breadth above umbilicus; the fœtal heart heard two hours before admission, but not now. The head was in the pelvic cavity, the os uteri the size of half-a-crown, membranes unruptured. No pains. At midnight, no labour pains being present, an elastic bougie was introduced between membranes and uterus and left there.

Dec. 13th.—The patient has only had short snatches of sleep. No labour pains. No spasm of arms or forearms, or any tingling. Flexor tendons still slightly tense. Os uteri a little larger. 2 P.M.: Patient naturally delivered of a stillborn child, beginning to decompose. No great hæmorrhage, but about 6 P.M. there was recurrence of hæmorrhage, which was easily stopped by kneading the uterus and the subcutaneous injection of ergotin. No spasm to-day; patient taking food well when offered to her. No vomiting.

16th.—Expression dull. Appears to take no interest in what is going on around her. Never asks for food, but takes it well when offered to her. No vomiting; tongue dry and furred. Bowels costive. Hands and fingers quite free from spasm. No numbness or tingling. Pulse 96.

17th.—Patient not so dull; answers questions more readily. Complains of thirst. No pain or headache.

18th.—An eruption of urticaria. Condition otherwise much the same.

20th.—Rash almost disappeared. Tongue clean in centre. Patient has quite lost her former apathy.

27th.—Discharged.

The temperature throughout never exceeded 99°.

The urine was examined on the morning after admission, and found to contain one-sixth of albumen and casts. On the 14th the amount of albumen had risen to one-fourth. From this date to Dec. 23rd the whole of the urine was collected daily, and the amount of urea in it estimated by the Russell-West process. The following are the amounts noted:—

Date.	Urine.	Urea.	Stools.	Diet.
Dec. 15	55 oz.	434 grains	—	Milk, beef-tea, 3 eggs
,, 16	69 ,, ...	564 ,, ...	1	,,
,, 17	68 ,, ...	391 ,, ...	2	,,
,, 18	55 ,, ...	739 ,, ...	1	Fish.
,, 19	52 ,, ...	597 ,, ...	—	,,
,, 20	52 ,, ...	697 ,, ...	3	,,
,, 21	40 ,, ...	556 ,, ...	2	,,
,, 22	40 ,, ...	518 ,, ...	—	,,
,, 23	30 ,, ...	393 ,, ...	—	,,

The record of the number of stools will give a rough idea of the quantity of urine lost with them. The effect of diet is seen in the augmentation of the amount of urea following fish diet.

The quantity of albumen in the urine quickly diminished after the 14th, there being only a trace on the 17th and none at all on the 23rd. The specific gravity ranged from 1012 to 1016. On Dec 15th the paraglobulin was separated and the cloud of paraglobulin was found about six times as large as that of the serum albumen.

The patient was readmitted on Jan. 18th. She had not vomited for four days after leaving the hospital; after that from two to six times daily. No appetite; flatulence; no headache. Slight pain in back when sitting up, none when recumbent. No œdema. A trace of albumen in urine.

The further history need not be given in detail. The patient steadily wasted; vomited frequently both by day and night. The abdomen was repeatedly and carefully examined by different persons, but no tumour was detected, nor was there either abdominal distension, pain, or tenderness. The vomit never contained blood. The quantity of albumen remained a trace only till the day before death, when it increased to a fifth, serum albumen and paraglobulin being in about equal proportions. The amount of urine averaged about thirty ounces a day from Jan. 18th to Feb. 2nd. From Feb. 3rd till death it was only about half as much as this. The patient became more and more apathetic. There were occasional tinglings and spasmodic contractions of arms and legs, but no persistent spasms of tetany. Feb. 9th the patient died. The necropsy was made by Dr. Anderson, and showed a tubular mass of hard cancer about two inches long surrounding the pylorus, and so narrowing it that the little finger could not be passed along it. Its inner surface was ulcerated. The stomach was slightly dilated. The cancerous pylorus was situated quite deeply behind the liver. The kidneys showed subacute nephritis. The other organs were healthy.

Remarks by Dr. HERMAN.—This case is interesting on account of the rarity of tetany in pregnancy, although its frequency during lactation is recognised. In the systematic works of Gowers and Ross, pregnancy is mentioned as a predisposing cause; but Meinert,[2] in a monograph on tetany in pregnancy, has only been able to put together six indubitable cases, including one observed by himself. In most of these, as in the present one, the spasms of tetany ceased after delivery. In the case now reported the antecedent conditions were essentially similar to those usually preceding tetany in other subjects—conditions of enfeeblement, here from vomiting due to cancer of pylorus, with pregnancy. Gowers quotes authors who have observed transient albuminuria in tetany, and Meinert, in his otherwise accurate paper, quotes a case as presenting albuminuria and œdema; but on reference to the original[3] I find that the quotation is incorrect, and that in the case in question there was no albuminuria. The case is also not without interest as one of those cases of malignant disease of stomach in which the absence of a tumour renders the diagnosis of the cause of the vomiting peculiarly difficult, the more so here because the presence of albuminuria and of the tetany suggested that the vomiting might possibly not be due to disease of the stomach. Lastly, there is yet another point of view from which the case is instructive—viz, as an item of evidence illustrating the clinical history of nephritis in pregnancy and puerpery, a morbid condition our knowledge of which is far from complete, and which is a very important one, from its occasional association with the grave event of eclampsia.

COUNTY ASYLUM, LANCASTER.

A CASE OF HÆMORRHAGE INTO THE SUPRARENAL CAPSULE OF BOTH SIDES; REMARKS.

THE following account is an interesting contribution to our literature on the subject of diseases of the suprarenal capsules, as the patient was under observation both during the onset and progress of the hæmorrhage, and the condition of the parts as found post mortem is added. "The cause of apoplexy of these bodies was referred by Royer to want of firmness in their medullary structure and in the fragility of the veins which it contains. Moreover, the large size of the chief vein of the capsule, according to Mattei, exposes it to pressure, which the numerous small arteries escape, so that any afflux of blood while pressure exists on the veins may tend to accumulation and rupture."[4] In four out of six of Royer's cases the extravasation of blood occurred on the right side. Mattei met with two cases, in each of which the extravasation was on both sides; one was a stillborn child, the other a man of sixty. In Greenhow's case[5] the affection was also symmetrical: this was a man aged twenty-nine, the subject of inter-

[2] Arch. für Gyn., Band xxx. [3] Gauchet, L'Union Méd., 1860.
[4] Brit. and For. Medico-Chir. Rev., vol. i. 1864.
[5] THE LANCET, vol. i. 1877, p. 350.

stitial pneumonia. Carrington[6] recorded an example of large blood cysts of the suprarenals, with a more recent hæmorrhage in the left side; on each side the cyst was as large as an orange. The man, who was fifty-four years of age, had marked bronzing of the skin. Records of suprarenal apoplexy are few in number. Canton[7] found the right capsule full of blood at the necropsy on a patient aged seventy-eight, who had had a severe fall and sustained fracture of the ribs. For the account of this case we are indebted to Mr. J. J. G. Pritchard, assistant medical officer.

C. S——, a demented old woman aged seventy-six, was transferred from another asylum to this one in April, 1889. She was feeble and complaining, and was described as being subject to chronic bronchitis, with irregular heart. During her residence here she frequently complained of aches and pains; but nothing definite was discovered except constipation, and she remained up all day. On Feb. 1st, 1890, she was suddenly seized with severe pain in the abdomen. She vomited several times and appeared to be in a condition of collapse. Her extremities were cold, and her face wore an anxious expression. Her bowels were confined; there was no hernia discovered. She did not pass any urine for twenty-four hours, and then only a moderate quantity, which was clear, and nothing abnormal was discovered in it. The sickness continued, and she rejected everything. She complained of great pain in her abdomen, now in one hypochondriac region, and now in the other, and sometimes in the back, in the lumbar region. She was ordered a poultice to her stomach, and was given opiates. The sickness stopped on the third day, but the bowels were not open, and she continued to look very ill; a glycerine injection had no effect. Her temperature hitherto had been subnormal. On Feb. 5th she developed pneumonia, and died on the morning of the 6th.

Post-mortem examination showed a large fatty heart, with dilated right auricle and ventricle. The valves were natural. Both lungs were congested and œdematous, and consolidation was present in the left lower lobe. On turning over the intestines there was an extravasation of blood over the right kidney, showing through the peritoneum. On closer examination there was seen to be a large mass of extravasated blood enveloping the kidney, the mass being about the size of two kidneys; this was easily removed, and the source of the hæmorrhage was seen to be connected with the suprarenal capsule, which was dark-coloured and swollen to about two-thirds the size of the kidney. The capsule had burst on the outer side, and blood had been extravasated around the kidney—which organ, however, could be easily separated from it—and was found fairly healthy, with the exception of one or two small cysts. The hæmorrhage had taken place into the centre of the capsule, as there were traces of the substance of the gland spread out over the blood-clot. It was then seen that the same condition of things existed on the left side, the suprarenal capsule being swollen to the same extent. The aorta was very atheromatous, and contained large bony plates in its walls. The suprarenal artery and vein were not found.

Remarks by Mr. PRITCHARD.—One of the specimens was sent to an eminent pathologist at one of the large universities, who said it was hæmorrhage into the substance of the capsule, the cortical portions being spread over it. He said this condition was stated to be not uncommon, though he had never seen a similar case. It was generally caused by great venous congestion, and sometimes from no apparent cause. I myself cannot find any similar cases recorded in back numbers of THE LANCET, though Dr. Greenhow refers to the condition in his lectures on Addison's disease, 1865, and Dr. Addison himself records a case which was on one side only. Reference to apoplexy of the suprarenal capsules is made in Dr. Neale's Medical Digest in two places, the *Medical Times and Gazette*, and the British and Foreign Medical and Chirurgical Transactions.

LIVERPOOL NORTHERN HOSPITAL.

A CASE OF HÆMORRHAGE INTO THE PONS VAROLII; NECROPSY.

(Under the care of Dr. BARR.)

THIS case is a good example of hæmorrhage into the pons, proving quickly fatal, with coma, contracted pupils, a rapid pulse, and high temperature. In apoplexy of the pons or the medulla, it is not uncommon to find this rise of temperature. "It may rise above the normal within an hour of the onset, and during the next hour may attain a height of 104° or 106°, and the rise may go on until death."[1] Of twelve cases of hæmorrhage into the pons primarily, in five the blood had escaped into the fourth ventricle, and in two it had reached the base of the brain. For the following notes we are indebted to Dr. Quintin M. Wallace, house physician.

D. J——, a tailor, aged fifty-six years, was admitted to hospital, under the care of Dr. Barr, on Feb. 1st, 1890, in a state of coma. It was learned from an acquaintance that for some weeks previously he had complained of giddiness whenever he was the least excited, that his memory had become very treacherous, and that he sometimes had confusion of ideas. On Feb. 1st, while sitting on a stool at his work, he suddenly fell to the ground. He did not at once lose his senses, but unconsciousness soon set in, and he became gradually comatose. When seen, half an hour after the attack, he was quite unconscious, his pupils were minutely contracted and insensible to light. There was slight response to irritation of the left cornea, but no reflex on the right side. The temperature was 97·4°. The respiration was stertorous, and the patient nearly asphyxiated. On drawing forward the tongue the breathing improved and the face regained its natural hue. The face was expressionless and the mouth deviated a little towards the right side, but that may have been due to the fact that he was lying on his right side. The left corneal reflex gradually disappeared. The breathing again became laboured and stertorous (25 per minute), and the face congested. The pulse was 150 per minute, full, and of high tension. Three hours and a half after the attack the temperature was 106°, and three quarters of an hour later 109°. Towards the end there was slight twitching of the right upper eyelid. The patient died four hours and a half after the seizure. The diagnosis of a pontine hæmorrhage was made.

Necropsy.—The membranes of the brain were venously congested. The convolutions were somewhat atrophied, with excess of fluid in the sulci and thickening of the arachnoid mater over the vertex. The arteries at the base of the brain were thickened and atheromatous. The pons was much enlarged, and gave a sense of fluctuation on palpation. On slicing it, the interior was found to be torn up and thinned out, enclosing a large clot, principally on the right side. The blood had burst its way into the iter a tertio ad quartum ventriculum, and had filled the fourth ventricle, the iter, and partially the lateral ventricles, which were distended with a large quantity of sanguinolent blood serum.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Hereditary Enlargement of Spleen.—Double Ovariotomy and Nephrectomy followed by Abscess of Lung.—Laparotomy for Suppurating Vermiform Appendix.

AN ordinary meeting of this Society was held on March 28th, the President, Mr. Christopher Heath, in the chair.

Mr. MORGAN exhibited the case of a Welsh miner aged twenty-eight who was affected with Molluscum Fibrosum. It was noticed at birth, when it was not larger than a walnut, and was probably of nævoid character; since then it had gradually increased in size, especially during the last few years. It now formed a huge pendulous fold, which hung down from the left supra-mammary region, extending from the sternum to behind the posterior axillary border. The nipple was drawn down with it, and was much enlarged, and there were numerous enlarged sebaceous glands to be felt in the skin. A bunch of axillary glands could be felt in the upper part of the fold; they had by traction been drawn considerably out of their normal position. It caused much inconvenience from the accumulation and decomposition of sweat beneath it. Mr. Morgan proposed to remove it with the knife.

Dr. CLAUDE WILSON read a paper describing some cases of Hereditary Enlargement of the Spleen, accompanied by

[6] Trans. Path. Soc., vol. xxxvi., p. 454.
[7] Medical Times and Gazette, vol. ii. 1856, p. 429.

[1] Fagge: System of Medicine, vol. i., p. 481.

a sallow or subicteric complexion. Notes on six cases, extending over three generations, were read. Any single case would probably, in spite of some anomalies, be regarded as malarial. In looking at the group, it was very difficult to decide whether they were to be looked upon as inherited malaria, as hereditary predisposition to slight miasmatic influences, or whether they were not really examples of some hitherto unrecognised morbid condition.—The PRESIDENT asked if more than one member of the family had married a cousin.—Dr. BARLOW had seen several members of this interesting group of cases, and the facts about them he believed were unique in clinical medicine, there being hereditary tendency to splenic enlargement without distinct proof of malarial influence; there were also a neurotic taint and deafness in some members. Two of the children presented evidence of rickets.—Dr. CHARLEWOOD TURNER said that in all the instances the eldest members of the family seemed to be affected. Like syphilis, the tendency to transmit it seemed to be weakened after a time.—Dr. WILSON, in reply, said that there was only one instance of the intermarriage of cousins; the affection had also been seen in a younger member of the family. He wondered if these cases were really instances of tendency to perpetuation of variations in different organs.

Dr. MYRTLE of Harrogate then related the after-history of the case of Sarcoma of the Kidney brought before the Society at the last meeting by Mr. Knowsley Thornton. In 1887 the patient, a lady, complained of pain under the short ribs, and a tumour was discovered which was thought to be splenic. For twelve months this was treated by electricity without benefit. In 1889 Mr. Knowsley Thornton pronounced it disease of the left kidney, and after an exploratory examination a sarcoma weighing twenty pounds, with the left kidney embedded in the mass, was removed on April 11th; the external wound healed readily, but convalescence was anything but satisfactory. The temperature kept high, nocturnal sweats were the rule, cough became troublesome, and pain in the left side continued, the patient lost flesh and spirits, and on May 22nd was sent to Harrogate for change of air. The journey nearly proved fatal, for three days the exhaustion was continuous and alarming; she could not be moved from the recumbent posture, the slightest attempt causing violent paroxysms of coughing. When strong enough to admit of partial physical examination great and general emaciation was found; whilst the right thorax rose and fell freely, the left remained immovable. The right lung was healthy, the left gave no evidence of its presence either on percussion or auscultation. He supposed that a branch of the phrenic nerve had been injured, causing paralysis of the diaphragm.—June 12th: Double quotidian ague set in; it yielded to full doses of Warburg's tincture.—16th: Congestion of liver with vomiting of dark-green bile and mucus for thirty hours, greatly relieved after bowels were moved, when much fetid matter passed.—July 2nd: Improved in strength, but still high temperature, night sweats, cough, and pain in side.—18th: After a severe protracted fit of coughing, mouth filled with thick offensive pus, and in one hour ten ounces came away. In the following ten hours the discharge measured eleven ounces. From the time when the abscess burst till the night of the 25th the amount expectorated reached twenty ounces during each twenty-four hours. On the 25th, at 9 P.M., she fell asleep, slept for seven hours, and after that there was no more discharge from the lung whatever. She now gained health rapidly. On Aug. 1st she was able to walk and drive, and on the 6th sailed from Liverpool for Nova Scotia. During the whole of the time she was under observation the action of the remaining kidney was carefully watched, and it proved equal to all the work required, the amount and character of the urine being normal. After the operation, whilst the superficial wound healed, deep-seated inflammation must have set in, and a collection of pus formed, which made its way to the diaphragm; the muscle would thus become of necessity inactive and respiration in the left thorax impossible; adhesions of lung, followed by the pus, would readily find its way into it, and by-and-by a ready vent was found through the bronchi.—The PRESIDENT remarked that but few patients could have had such a series of adventures in surgery.—Mr. THORNTON, after having made a few corrections in the account of the operation, said that the condition of the patient on her arrival at Harrogate suggested some alteration in the location of the pus; breath sounds were audible on the left side at the time when she passed from under his notice. The discharge of dark, pitchy matter from the bowel suggested some escape of matter into that tube. He supposed that the sudden cessation of expectoration meant that the cavity must have closed up as rapidly as it emptied itself. This again raised the question as to whether pus which was of putrid odour as coming from near the bowel was really septic. In reply to the President, he said that he did not know of another case in which removal of a post-peritoneal tumour was followed by formation of abscess.—Dr. MYRTLE, in reply, said that he feared ultimately a return of the lung mischief. The difficulty with the action of the bowels had led him to conjecture that a stricture might be present.

Mr. HERBERT ALLINGHAM then related an obscure case of Acute Abdominal Obstruction in a boy aged ten, in whom laparotomy was performed and a suppurating vermiform appendix removed. The patient was admitted to the Great Northern Hospital on Jan. 1st, 1890, with the following history—viz., that he had become ill at school in the preceding September, and had been pronounced by Dr. Mason of Maidenhead to be suffering from typhoid fever, from which he soon recovered. On Dec. 30th, 1889, he fell out of a "go-cart," and complained of pain in the stomach. He was soon taken with sickness, and had to go home. Dr. Routh of Hornsey saw him on Jan. 1st. He was immediately removed to the hospital, being in the following condition. He was lying in bed on his back with the legs drawn up, the face flushed, expression anxious, tongue dry and red, pulse rapid and hard, the abdomen was generally swollen with possible fulness in the middle line, extremely tender to the touch, and slightly tympanitic. The bowels had acted once very soon after the accident, but not since. He had vomited about five times; temperature varied between 102° and 103°. He thought from the history the case was one of a twist or intussusception, or perhaps a typhoid scar had given way. Accordingly, he operated at once, opening the abdomen in the middle line, and carefully felt over all the intestines. Finding nothing wrong, he turned his attention to the cæcum and found a distinct hardish mass there. This he pulled towards the wound, and then saw it was the cæcum covered with recent lymph, and the appendix quite free except at its apex, and very distended. While drawing the appendix to the surface it burst, and discharged about one ounce of fetid pus. The appendix was therefore removed, the stump being ligatured, and the peritoneal surfaces sewn over it. The abdomen was then sponged out and sewn up with silkworm-gut sutures. On examining the appendix after removal, he found a small hard laminated fæcal concretion about the size of a cherry-stone, which was shown. The boy made an uninterrupted recovery, being quite well fourteen days after the operation; he was shown at the meeting. Had the operation been delayed even a few hours, the pus in the very distended appendix must have been discharged into the general peritoneal cavity.—Mr. TREVES criticised the title of the paper; the case he thought throughout was a typical straightforward one of localised peritonitis following obstruction in the vermiform appendix, and he considered it would have been much better to have approached it from the side. He commented on the advantage of rectal examination in aiding the diagnosis of these cases. Mr. Allingham spoke of tucking in the peritoneum over the stump; he had never been able to accomplish this in the case of a diseased appendix. If in operating one found that the case had gone on to the formation of localised abscess, and the appendix was not easily discoverable, it was better simply to open and drain rather than to endeavour to perform a plastic operation.—Mr. KNOWSLEY THORNTON mentioned a case of his own, in which a young footman aged seventeen presented himself with signs of peritonitis over the cæcal region. Immediately he opened the peritoneum a coal-black appendix presented itself, and both the cæcum and a neighbouring portion of omentum were also black; he removed as much of the gangrenous parts as he could, washed out the pelvis, and put in a Keith's tube to drain; the patient, however, died of septic peritonitis. With regard to the treatment of the vermiform appendix, it did well if simply tied, provided that the ligature was made to transfix a portion of the tissue so as to prevent its slipping. In two or three cases he had adopted the plan of bringing the peritoneal edges together over the stump, but the disadvantage of that proceeding was that a cavity was enclosed between the ligature and

the flaps, in which a tension abscess might form. It was better to leave the end of the stump open and exposed to the healthy vital action of the peritoneum. He agreed that if a limited abscess cavity were found it should be simply opened and drained, but such a procedure was open to the objection that a recurrence was very liable to happen. In one such case he had been obliged to open an abscess cavity three times. If in such a case he could have found the vermiform appendix easily he would have removed it.—Mr. BENNETT said he had never yet cut down on a case in which removal of the appendix was feasible. He held that if abscess existed it should be simply opened and drained, and it should be approached from the nearest point. In these cases under chloroform a resistance could usually be felt over the cæcum. In one case he could easily feel a distended tube through the anterior parietes which could not be felt per rectum.—Mr. PAGE asked if the appendix was cut through at a healthy part; if it were cut through opposite to a diseased portion it was impossible to suture the peritoneum over it. There were certainly conditions other than concretion which set up inflammation of the appendix.—Mr. ALLINGHAM, in reply, said that the signs of affection of the cæcal region were so slight that he decided to cut down in the middle line; the appendix was in a healthy condition at the point opposite to which he sutured the stump.

HARVEIAN SOCIETY.

General Paralysis of the Insane.

AT a meeting held on March 20th, Dr. SAVAGE read a paper on General Paralysis of the Insane, which he considered to be a disease of higher civilisation. It was rare in the Highlands and wilds of Great Britain and Ireland, and also in the negro of the Southern States. Dr. Savage looked upon general paralysis as a premature decay frequently having a local origin. In earlier symptoms of this disease extreme difficulty was often experienced in distinguishing between causes and early symptoms, for in many cases the causes of general paralysis might often form signs of the disease. As a result of extensive observation, Dr. Savage finds it more commonly met with in middle-aged married men, inhabitants of cities, flesh eaters, and drinkers of alcohol. When the onset is gradual, the finer social and muscular adaptations fail, and weakness in mind and body gradually becomes apparent. In cases which occur suddenly, the storm may assume the character of a convulsive seizure, or an attack of emotional excitement, or one of mania. Ataxy also may be the first symptom of general paralysis. In this form there will generally be muscular defects of the hands and tongue out of proportion to the progress of the ataxy, and the symptoms will be either those of exaltation or of hypochondriacal melancholia; whereas, if the insanity be that of the ordinary ataxy, it will be of the suspicious and "persecuted" type. Temporary aphasia is one of the most striking warning symptoms of this disease. In such cases the patient, without any real cause or after slight excitement or fatigue, becomes aphasic. The attacks may recur, and this aphasia is usually marked, before changes in the handwriting become apparent, though this symptom is an early one in cases of general paralysis. Then facial expression is very early affected. Syphilis plays so important a part in general paralysis that Dr. Savage says: "If after a history of syphilitic cranial nerve lesion there are any signs of nervous instability, there is real reason to fear that general paralysis may be the result. Any local cranial lesions, especially such as depend upon syphilis, may originate the degeneration of general paralysis." Dr. Savage observes from his notes that neuralgia, headache, sciatica, rheumatic pains, and the like, were almost universally recorded as having been noticed a year or more before general paralysis was recognised. Double sciatica is not a symptom to be overlooked, and if it is recurrent and associated with any change in habits or character, it is a warning not to be disregarded. Among the warnings of a "mental" nature, the gradual loss of power of social accommodation is one of the earliest and most marked. Memory for recent events becomes defective; loss of the power of attention and a want of persistence are very well marked. In early general paralysis stupid stealing and thoughtless indecency are the common forms of its manifestation. The early "general paralytic" easily becomes drunk, and is easily poisoned. Changes of temper and character are probably the most common of all the changes which are noticed in early general paralysis. Alternations of buoyancy and depression are of bad import. The sudden outbreak of mania is a frequent precursor of general paralysis, and this is specially interesting when it assumes the form of delirious mania. Warnings of general paralysis may be present for years, and almost certainly they are present for a year at least before the symptoms induce even the sensitive specialist to scent out the disease.

Mr. HARRISON CRIPPS felt disappointed that so far the physician could only diagnose the disease and prognose its course. He himself believed that definite changes—namely, diminution in the size of the brain and increase of the intracranial fluid—were associated with general paralysis. Dr. Claye Shaw believed that the increase of fluid caused the atrophy of the brain, and therefore, at Dr. Shaw's suggestion, Mr. Cripps had attempted to relieve the patient by draining away the excess of fluid. His first case was operated upon last June, and its details had already been published. He had since operated upon a second case. No ill results had followed from the operation; but, on the other hand, the immediate effect upon the mental state was markedly beneficial. In the first case, six months after the operation the patient was practically well, but since then he had had a relapse, with fits. In the second case, similar good results as regards the mental state were observed, but the motor symptoms remained *in statu quo*.

Mr. BRUCE CLARKE agreed with Mr. Cripps that surgical interference in such cases was devoid of danger and was likely to be of permanent benefit in the disease.

Dr. BEEVOR remarked that the post-mortem appearances of general paralysis of the insane were as yet unknown, and doubted whether the changes described by Mr. Cripps would be found constantly associated with the disease.

Dr. LEES referred to the description of the post-mortem appearances of general paralysis as given by Dr. Bevan Lewis in his recent work on Insanity, in which stress was laid upon opacity of the membranes and adhesion of the membranes to the cortex.

Dr. ORMEROD related several cases where ataxic symptoms supervened in a patient after he had been discharged cured from an asylum. He asked Dr. Savage whether the prognosis of general paralysis was at all influenced by the additional symptoms of locomotor ataxy.

Dr. ROBERT MAGUIRE referred to a case which had occurred recently at St. Mary's Hospital. A man was found unconscious, and on examination had left spastic hemiplegia, with occasional clonic spasms. The head and eyes were turned to the left, the right pupil was contracted, the temperature rose to 108·5°, and the man died. On post-mortem examination, Dr. Maguire had found no lesion whatever which could account for the symptoms. There was opacity of the membranes, excess of cerebral fluid, and a few calcareous plates in the falx cerebri. But he was of opinion that these appearances could not be associated with any definite nerve symptoms. He suggested that this and similar cases of death from functional nerve disease in which no lesion could be found were probably instances of undetected general paralysis ending with a so-called congestive attack.

Dr. CAGNEY called attention to the fact that many of the slight symptoms described by Dr. Savage occurred during convalescence from acute fevers, and he asked Dr. Savage whether he had observed any relationship of general paralysis to the acute fevers.

Sir JOSEPH FAYRER inquired whether sunstroke had been observed as an exciting cause of general paralysis; it was undoubtedly overlooked as a cause of disease in this country.

Dr. SAVAGE, in reply, doubted whether any operative interference could produce permanent good results in general paralysis, and said it must be remembered that in this disease, as in epilepsy, any treatment whatever might be followed by temporary improvement. He could give no definite opinion as to how far the presence of ataxy influenced the prognosis of general paralysis. He would remind physicians that they had yet to investigate an ataxy of cerebral origin. He had seen a general paralytic die in his first fit, but had never noticed any association of general paralysis with the acute fevers or with sunstroke.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

JAN. 10TH.

MR. ARMSTRONG, PRESIDENT, IN THE CHAIR.

Notification of Infectious Diseases.

THE meeting was devoted to the discussion of questions arising out of the correspondence that had passed between the Society and the Local Government and Metropolitan Asylums Boards on the Notification of Infectious Diseases. The gravest complaint was that since the discontinuance of the weekly returns of admissions into the hospitals of the Asylums Board, formerly supplied to medical officers of health, a large number of cases remained unnotified, the sanitary authorities being consequently unable to take the necessary measures for the removal of insanitary conditions to which these cases might have been due, or to provide against the further spread of infection. Among such cases were, as Dr. Dudfield pointed out, those admitted into general hospitals or sent from these to those of the Board, as well as such as entered the latter hospitals voluntarily. Dr. Findlay read a correspondence that had passed between the authorities of Middlesex Hospital and the Local Government Board. As to the interpretation of the clause of Sec. 3 exempting from the duty of notification "hospitals in which persons suffering from infectious diseases were received," which they were informed by the board extended only to in-patients, cases occurring among the out-patients to be notified to the medical officers of health of their respective districts. But, as Dr. Findlay remarked, many cases of diphtheria and enteric fever were admitted into general hospitals, the sanitary authorities of the districts where the disease had been contracted remaining ignorant of their existence. Dr. Willoughby was of opinion that the legal advisers of the Local Government Board seemed to be under the impression that patients, when within the walls of a hospital, were no longer dangerous to the community, forgetful of the fact that their illness might have been caused by the conditions of their dwellings calling for removal, and that measures for disinfection &c. might be required. He suggested that the duty of notification should extend to "all cases of infectious disease admitted into any hospital whatever, except such as had been received on the certificate of a medical practitioner." This proposition was accepted unanimously, but Dr. Corfield would include cases, as of erysipelas, appearing in patients already in hospital, since these might be caused by sanitary defects in the buildings, which ought not, he considered, to be exempt from the control of the sanitary authority. Dr. Corfield then stated that the School Board had requested the sanitary authorities to inform them of all cases of infectious diseases occurring in families from which children attended any of their schools. The desirability of such notification was unanimously approved, but a long discussion ensued as to the best method of carrying it out. Dr. Willoughby explained that 30 per cent. of the children in London attended voluntary schools, with which the Board had no relation save that of compelling their attendance, and that the only practicable course would be to report such cases direct to the headmaster of each school, whether under the Board or not. In this he was supported by Dr. Newsholme, and the resolution in favour of this course, moved by Dr. Newsholme, was carried unanimously.

MARCH 14TH.

Epidemic Influenza.

DR. FRANK G. CLEMOW, who had recently returned from St. Petersburg, read a paper on Epidemic Influenza, with special reference to its etiology as illustrated by the history of the present and of previous epidemics. Undoubted records existed of a large number of more or less widespread epidemics from 1510 to 1847, when it last visited this country; but Dr. Theophilus Thompson was not disposed to attach much value to older accounts, and even Hirsch did not carry his enumeration further back than the year 1173. Dr. Clemow, however, considered that when we found a description of a pest that attacked almost everyone with fever, cough, catarrh, and pains in the head and limbs, but of which very few died, we were justified in recognising it as influenza. One such was referred to by Hippocrates and Livy about 412 B.C., but more explicit descriptions had been handed down to us by Bishop Gregory of Tours in A.D. 591, and by others in the ninth and tenth centuries. During the next three hundred years only one epidemic seemed to have been noticed—viz., that of 1173, which extended over Germany, Italy, France, and England, but from 1327 onwards they appeared to have recurred more frequently. While we were so much in the dark as to the pathology and etiology of the disease, Dr. Clemow considered the name influenza—i.e., some unknown influence—given to it by the Italians of the sixteenth century as at least unobjectionable, and better than "catarrhus contagiosus" or others which assumed its nature or implied as essentials what were only accidents of the disease. The present epidemic was reported from Siberia in October, and spread over the whole of Russia during November. In the first ten days of December Poland, Austria, Germany, Denmark, and Sweden; in the next France, Spain, and the Balkan States; and in the last Holland, Belgium, Norway, England, and Italy were successively attacked. In the first half of January it extended to Canada and the United States, and in the latter to Tunis, Egypt, and Persia; while within the next month it had appeared in India and at the Cape. The progress of the epidemic was thus from east to west, modified or diverted by mountain ranges and seas, and in no relation, if not actually opposed to the direction of the prevailing winds. Accounts, however, had recently been received of its existence in Greenland, Saskachewan, and the Hudson's Bay territory as long since as last spring, whence it would seem that it might have been carried to Siberia, and thus to have made the entire circuit of the globe. Referring to the meteorological conditions alleged to attend or coexist with epidemics of influenza, he confessed that it was not possible to arrive at any satisfactory conclusion as to any relation of the nature of cause and effect; if anything, mild weather in winter seemed to favour it. The most remarkable phenomenon of its progress was the rapidity, almost suddenness, with which large numbers of persons, or entire communities, were attacked, exceeding anything observed in the case of other infectious diseases, and not easily explicable on the ordinary theory of contagion, but apparently suggesting aerial conveyance of some kind. As examples, he cited one which came under his personal observation of 220 out of 260 men employed in a Government establishment at Cronstadt being attacked within a few hours, and the historical instances of half a million persons being seized in a few days in London in 1847, and of 40,000 in St. Petersburg in 1782, while the thermometer rose between 2 A.M. and 6 P.M. from 47° below to 45° above Fahrenheit's zero. But whether ordinary personal intercourse could or could not wholly explain these phenomena, the recorded exemption or otherwise of the inmates and attendants respectively of asylums, prisons, &c., and other observations of a like kind, left no doubt as to its contagiousness, while they also served to fix the incubation period at about two days. On the two propositions that had been put forward in connexion with influenza, that it caused the temporary disappearance of other diseases, and that it stood in some causal relation, either as a precursor or a consequence of other epidemics, of which cholera most closely concerned us, he stated his belief that they were merely the expressions of bare impressions, the former being opposed to actual experience, and the latter having no real basis in facts. Two of the European epidemics of cholera, indeed, happened to follow or to accompany those of influenza, but in the other three no such relation had existed, and there was no reason to think that it would again, except as a simple coincidence.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, MARCH 12TH.

SIR THOMAS CRAWFORD, K.C.B., M.D., PRESIDENT, IN THE CHAIR.

Treatment of Scarlatina.

MR. J. B. CURGENVEN, in introducing the subject of the Treatment of Scarlatina with Oil of Eucalyptus, which he had practised for the last twelve months and which he believed to be equally applicable to other infectious diseases, claimed for it that it was capable of superseding all other curative and preventive measures, and of rendering unnecessary all attempts at isolation of the sick, disinfection, beyond what it effected itself, of clothing, bedding, furniture, and rooms; and, except so far as better nursing accommodation &c.

were concerned, the costly establishment of special hospitals for infectious diseases. Quoting Dr. Lauder Brunton's belief that a germicide which might circulate in the blood without injury to the living body, though still unknown, was not inconceivable, he maintained that the essential oils of eucalyptus, thymol, and others were such. Reviewing previous attempts at superficial and local corporal disinfection, he insisted on the inefficacy of carbolic acid, except in so concentrated a form as to be caustic; on the danger of absorption from the use of sublimate solutions over extensive surfaces; on the action of fixed oils and fats in neutralising the germicidal properties of chemical bodies, and their injurious influence in checking the functions of the skin, which more than counterbalanced the lessened dispersion of the cuticle or disease germs which was aimed at in their use, first proposed by the late Dr. W. Budd twenty years ago. Permanganate of potash, though not poisonous, was objectionable, and sanitas ineffective; but oil of eucalyptus was perfectly innocuous, a powerful germicide, and extremely volatile, thus possessing every advantage, positive and negative; while, on the principle advanced by Dr. Paris that a number of drugs of like properties combined in small proportions were more efficient than larger quantities of one of them alone, he preferred Tucker's eucalyptus antiseptic, which contained, in addition, menthol and several essential oils and camphors, to the eucalyptus oil itself. He gave it internally in frequent doses of a few drops shaken up in water; he saturated the clothing, sheets, pillows, &c., and sponged the entire surface of the body with it twice a day, besides sprinkling the floor, furniture, and walls till the air of the apartment was impregnated with the not unpleasant odour. He had not practised spraying of the throat, but, in reply to a member present, said that in severe cases, and certainly in diphtheria, he would consider such a procedure advisable. The results he had invariably obtained were the immediate arrest of the eruption, which did not extend further, the speedy relief of angina and subsidence of enlarged glands, rapid defervescence of the fever, the temperature falling from 104° or 105° to 100°, or even the normal, within a few hours, and the entire absence of albuminuria, due to the elimination of such oils by the kidneys; in short, the immediate arrest and cure of the disease. Further, it was, he maintained, no less effective in aborting the disease if the treatment were commenced when the symptoms of invasion had appeared, but the eruption &c. had not been manifested; and lastly, in protecting the most susceptible persons against infection, even though they remained exposed to it, adducing the case, among others, of five young children, who could not be supposed to be all of them insusceptible, and none of whom had had the fever before, in a small room where a sixth lay ill, the mother refusing to part with her sick child, and being unable to send the others away or even to remove them from what was her only apartment. He believed his cases to be numerous enough to exclude fallacies of the natural early subsidence of the fever, great resisting power or insusceptibility on the part of other children, and, in fact, all element of chance.

HUNTERIAN SOCIETY.

AN ordinary meeting of this Society was held on March 12th, the President, Dr. S. Mackenzie, in the chair.

Gumma of the Heart.—Dr. TURNER showed a heart, in the wall of which was an extensive syphilomatous growth with a necrotic central tract, surrounding and considerably contracting the infundibular part of the right ventricle three-quarters of an inch from the pulmonary valve, and projecting into the left ventricle. The right coronary artery was patent, but the left was occluded by a thrombus, its wall being also much thickened. A nodule the size of a large pea was found in the right testis, but no other sign of syphilis was discoverable. There was, however, a history of infection ten years previously. At the apex of the right lung, which was firmly adherent to the chest wall, a fibroid tract enclosing a small cavity was situated.

Cancer of the Liver.—Mr. TATHAM exhibited a specimen of Cancer of the Liver from a sailor aged sixty-one, who had for six months complained of dyspeptic trouble. Large cancer cells were observed in the vomit. The portion of the liver adjacent to the pyl rus had become adherent to a tumour, and its substance was in that position much broken down. About three-fourths of the entire organ were found to be infiltrated with cancerous growth, the primary growth being at the pylorus.

Puerperal Nephritis.—Dr. COTMAN showed the Kidneys from the body of a plethoric woman aged forty, who had died comatose seven days after the birth of her tenth child from puerperal eclampsia. She had apparently recovered from the convulsions, and albumen had nearly disappeared from the urine, when fatal coma supervened.

Sebaceous Cyst of Umbilicus.—Mr. BIDWELL showed a Sebaceous Cyst of the Umbilicus the size of a large cherry, taken from a boy aged twelve. The swelling had been noticed for two years. The skin was not adherent to it.—Mr. POLAND asked whether the cyst could have been formed by involution of the epidermis during cicatrisation.—Mr. BIDWELL also showed a Thyroid Gland the subject of tubercular deposit. The gland was not enlarged, but there was a caseating tubercle, the size of a large pin's head, in the centre of the right lobe. The specimen was taken from a child aged five years and a half, who had died from acute general tuberculosis.

Hydatid of the Liver.—Dr. FOWLER showed a large Hydatid of the Liver from a young woman aged twenty-six years, who had died suddenly from pressure upon the vena cava. The patient had also a suppurating sinus in the left loin, which had been treated at Guy's Hospital twenty years previously. The cyst in question was evidently of old duration, and had given rise to no symptoms until two days before death.

Myeloid Epulis.—Mr. J. HUTCHINSON, jun., showed microscopic preparations from a case of Myeloid Epulis, typical of myeloid sarcoma, with giant cells. Nodules of bone were observed in the slide. It was said that these tumours do not ossify, but Mr. Hutchinson had found the reverse to be the case. He also showed a small Salivary Calculus taken from a woman of thirty-five, who had been sent into the hospital for epithelioma of the tongue. A hard mass was situated in Wharton's duct, which he thought might be due to a calculus, and on cutting into it he found that was the case. He further called attention to some microscopic slides illustrating a case of Paget's Disease of the Breast, which had lasted four years. The presence of a low vegetable organism belonging to the coccidia was demonstrated, which had been recently discovered to be the active agents in producing the disease.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Exhibition of Specimens.—Cæsarean Section.

A MEETING of the Obstetrical Section was held on Jan. 31st.

Dr. MACAN exhibited a Uterus which he had removed on Dec. 28th by the ordinary process of extirpation per vaginam. The mode of operation involved a separation of the bladder in front from the cervix. By pressing the bladder upwards and drawing the uterus down the needle was made to go in between the bladder and the portion of the broad ligament required to be tied. By this method the danger of tying the ureter was overcome. The temperature and pulse were normal on the afternoon of the operation; but, to his dismay, next morning the patient showed symptoms of sepsis, peritonitis came on, and she died about a week after the operation. He now believed that the cause of the sepsis was his having made a rectal examination immediately before he operated. He disinfected his hands, but he was, nevertheless, quite convinced, from having read Leopold's cases, that it had led to the peritonitis.

Dr. W. J. SMYLY exhibited an Ovarian Tumour.

Dr. MACAN showed a Dermoid Cyst which he removed from a woman five and a half months pregnant.

Dr. MACAN also brought forward a case of successful Cæsarean Section, which was, as far as he could learn, the only successful case ever performed in Ireland. The patient was a dwarf sent up to the Rotunda Hospital in July, 1889, by Dr. Kearney of Dundalk. The operation was performed on Aug. 5th, 1889, at 10.30 A.M., the cervix being quite taken up, and the os admitting one finger. The placenta was adherent to the anterior uterine wall, and was divided by the uterine incision; the hæmorrhage was controlled by an elastic ligature round the cervix. The child was slightly asphyxiated when extracted, but soon cried out lustily. The uterine walls were brought together by seventeen inter-

rupted silk sutures, passed through the whole thickness of the uterine wall, and no separate ligature was used to bring the peritoneal edges of the wound together. The method of suture was in every respect similar to that used for closing the wound in the abdominal walls. There was considerable hæmorrhage, but the patient made an uninterrupted recovery. More than five weeks after the operation the temperature rose to 102°, which was much higher than it had been after the operation, and was probably due to a return of menstruation. Since the patient has gone home two sutures had been expelled per vaginam.—Dr. SMYLY thought if the lives of mothers and children were to be saved, the general practitioner should be as well prepared to do Cæsarean section as to put on a forceps. He thought Porro's operation much simpler, and quite within the powers of an ordinary operator. One reason, however, why the statistics of the two operations when compared were likely to lead to erroneous results was that all the bad cases had to be done by Porro's operation, whilst Cæsarean section was only adapted to the easier and better cases. He thought Lawson Tait's plan in Porro's operation of having an assistant to manage the elastic ligature was an improved practice which might be employed with advantage in Cæsarean section.—Dr. DILL mentioned a case where a midwife had performed the operation; and his predecessor had an unsuccessful case.—Dr. MOLONY said he believed the operation was performed by Dr. George O'Farrell in Boyle. The patient lived thirty-six hours.—Dr. MACAN said antisepsis was harder to secure in the Cæsarean than in Porro's operation. For the general practitioner Porro's, he thought, was the easier of the two. The conditions under which it became more safe for a woman to be delivered by Cæsarean section than by perforation raised an important question. On the Continent they were going a little too far, for a great many of them had done away with the idea of perforation. But, in the middle of labour, to turn over to the Cæsarean section was always a dangerous procedure.

The Medical Selection of Lives for Assurance.

A meeting of the Section of State Medicine was held on Feb. 7th.

Instead of the usual introductory address, Dr. A. W. FOOT, President of the Section, read a paper on the Medical Selection of Lives for Assurance.—Professor PURSER, speaking from many years' experience in examining for life assurance, agreed generally with the views expressed by Dr. Foot. The causes of death assigned were so imperfect, and so frequently absolutely incorrect, as to be of very little value; and, therefore, except in very clear cases, he set no value at all upon family history. No doubt if an applicant stated that all his relatives had died of consumption it would be very much against him; but the ordinary causes of death assigned, even in the Registrar-General's returns, were worth very little, a very large number being certified at random. He did not think such an applicant suffering from albuminuria safe to accept on any terms. Another fatal barrier to a person being insured was intemperate habits, and hence, in the case of every applicant, the strictest inquiries were made as to what he drank, when he drank, and how much he drank. He did not think there was ever a case passed by him of a person who stated his habits to be temperate and whose habits were intemperate; whereas he knew persons who stated they were of intemperate habits when he himself would not consider them to be so.—Dr. M'SWINEY asked whether hernia, which was now so successfully cured by the radical method, would involve rejection. Organic valvular disease was another point upon which he desired a definite opinion.—Dr. BEWLEY, as an examiner for an insurance company, said he had met with two cases of primary syphilis followed by eruptions. He submitted that an applicant so suffering ought not to be considered on a par with a man who never had syphilis.—Dr. E. MACDOWEL COSGRAVE said insurance offices were now, as a rule, alive to the importance of the symptom of albumen in the urine; so that, at any rate in all cases of policies for over £500, the compulsory examination of the urine was the rule. One company solved the difficulty of intemperance by adopting a sliding scale. Thus, where the amount was £1000 and the expectation of life twenty-five years, if healthy, the policy was issued upon the terms that if the insured died in the first year the liability of the company would be only £800; but each year of life increased the policy, so that in twenty-five years the policy was for £1000.—Sir WILLIAM STOKES said nothing could be more pernicious and unfair than making the doctor's fee for examination proportionate to the amount of money insured; because the medical man who discharged his duty must necessarily have the same trouble in examining a person seeking to insure for £100 as in the case of a person insuring for £10,000; and he thought the medical profession ought to make a stand on the point. His experience did not coincide with Professor Purser's in meeting persons who told the truth as regards their habits of life, especially persons of intemperate habits. He had known three cases of intemperate or free drinkers who had exercised self-denial for months, and then gone before a doctor, and denied that they were or had been of intemperate habits, and so passed as first-class lives; but immediately afterwards they reverted to their old habits, got ill, and died. Notwithstanding the advances in surgery, he would not recommend a person with hernia as a first-class life; he would be extremely apprehensive of the result of the operation for the radical cure. Even after a successful operation the hernia might return, perhaps in a form more difficult to deal with than before. Neither would he accept a person affected with hæmorrhoids as a first-class life. The operation only dealt with the existing condition of the parts the seat of the disease, and not with the conditions which brought about the disease. He would not recommend cases of albuminuria to be taken under any circumstances, the presence of albumen being sufficient indication of organic disease.—Drs. Donelly, W. Stoker, F. Nixon, and Sir C. Cameron having spoken, Dr. FOOT, in reply, thought it was difficult in some cases to give a decisive opinion as to whether a particular life was a good one or not, so many circumstances had to be considered and weighed; but the company required that the practitioner should come to a definite conclusion without setting forth his reasons.

Reviews and Notices of Books.

Outlines of the Clinical Chemistry of Urine. By C. A. MACMUNN, M.A., M.D. Dublin. Pp. 239. London: J. & A. Churchill. 1889.

THERE is a great tendency at the present time to study clinical medicine, chemistry, and pathology entirely apart from one another, and to treat them almost as separate sciences, instead of considering them collectively. The border lands between what has been termed "clinical chemistry" and what we venture to call "clinical pathology" have only been slightly touched upon, and offer abundant opportunities for original work, and we gladly welcome any contribution to the literature on these subjects. Such is contained in the volume now under consideration. The name of the author of this book is sufficient guarantee that it will prove an interesting and instructive one, for he is already well known for his work on the "Spectroscope in Medicine" and his researches on hæmatin. Dr. MacMunn has not spared any pains in consulting most of the authorities of all countries who have written on "clinical chemistry," and by the large list of references given as footnotes has paved the way for others to follow in his steps.

The book is divided into three parts. Part 1: "Normal Urine and its Constituents, and their Variation under Diseased Conditions." Part 2: "The Abnormal Constituents of Urine." Part 3: "Urinary Deposits and Calculi."

In the first part, after a short chapter on the "Function of the Kidney and Mechanism of its Secretion," the author gives an exhaustive account of all the various components of the urine in health, including not only urea, uric acid, and the like, but also the less important constituents, organic and inorganic, such as alantoin, hypoxanthine, &c. The chemical composition of these bodies is well given, followed by the qualitative tests, and full directions for conducting quantitative analyses; where the crystalline forms are characteristic, excellent diagrams are given. The

proportions in health and disease are carefully noted, and the various deductions which may be drawn from any deviations from the normal. The author pauses occasionally in the categorical account of these bodies to consider shortly such conditions as uræmia and phosphaturia, the latter being especially interesting. With regard to the much-debated question of the cause of uræmia, Dr. MacMunn says: "I think there can be very little doubt that the animal alkaloids known as ptomaines and leucomaines play a very important part in both uræmia and probably in Kussmaul's coma." This theory, which accords with the experimental results of Bouchard, is certainly worth consideration.

Before passing on to the next section, we would here suggest to Dr. MacMunn that in a future edition of this work, which is almost certain to be called for, more space should be given to the significance of the amount of acidity of the urine, following the lines started by Bence Jones and afterwards pursued by Maly, especially in reference to the "alkaline tide" occurring at various times.

In the second part of the book, which is perhaps the most important, full directions are given for the detection and estimation of the abnormal constituents of urine. The chapter on "Serum Albumen and other Proteids" is especially instructive, and is a valuable compilation of the methods for estimating the albumen and distinguishing its various derivatives; the tables given greatly aid in explaining this difficult subject. Dr. MacMunn agrees with most modern authors that "it is not so easy to detect the bile acids by Pettenkofer's reaction as is commonly supposed," although he does not go so far as some authors as to state that these acids cannot be detected unless they have been artificially added. We may also draw attention to the spectroscopic examination of urine so fully detailed throughout the book, much of which is quite new.

The third part is less fully worked out in detail, although, as the title of the book suggests, it is intended to treat more of clinical chemistry than of clinical pathology. The best chapter is that on Calculi. Urinary deposits are disposed of in fourteen pages. The most important micro-organisms, such as tubercle bacilli, are merely mentioned in a footnote, whilst the whole subject of fungi and entozoa only occupies a page.

Taken as a whole, however, the book supplies a want that has long been felt, and may be warmly recommended to all who desire information on the clinical chemistry of urine.

Lectures on General Pathology: a Handbook for Practitioners and Students. By JULIUS COHNHEIM. Translated from the Second German Edition by ALEXANDER B. MCKEE, M.B. Dub. Section II. The Pathology of Nutrition. London: The New Sydenham Society. 1889.

THE second instalment of this excellent translation of Cohnheim's invaluable work followed closely on the appearance of the first, and the English reader is now in possession of some of the leading doctrines enunciated by that eminent author. This section deals with necrosis, atrophy, degeneration, regeneration, hypertrophy, and tumours. The last subject is the most distinctive and characteristic. The difficulty of defining what is meant by a tumour is stated, also the inconceivability of such a formation containing any elements but those which are to be found in the normal body. The statement of the insufficiency of knowledge respecting the nerve-supply of tumours calls to mind the ingenious speculations made by Professor Marshall in his recent Bradshawe Lecture upon Cancer. The etiology of new growths was, as is well known, largely relegated by Cohnheim to aberrations in embryonic development, and the arguments in which he built up his theory of the inclusion of cells or "tumour germs" to explain the occurrence of tumours in various parts are supported by much direct observation and even more by analogy. As regards "congenital" tumours—e.g., dermoids—subsequent observers are in full accord with this hypothesis, and in its wider extension to all forms of new growth it cannot be said to have been displaced by any more reasonable view. His argument, too, that malignancy does not depend on any special property of the tumour itself, but on the diminished resistance to invasion offered by the surrounding tissues, was an even bolder attack on preconceived ideas, one, too, which was less easy to admit. As to generalisation, Cohnheim advocated the direct transport of the cell elements themselves, and not that of any "juice" or secretion of the growth as being the source of secondary formations. Whatever may be the ultimate fate of his teaching in this as in other matters, there can be no question of the great influence it has exercised upon pathological inquiry, and once more we express our thanks to the new Sydenham Society for undertaking the publication of a work which must always hold a prominent place in the history of medicine.

The National Medical Dictionary. By JOHN S. BILLINGS, A.M., M.D., LL.D. Edin. and Harv., D.C.L. Oxon., and the following collaborateurs: W. O. ATWATER, M.D.; FRANK BAKER, M.D.; S. M. BURNET, M.D.; W. T. COUNCILMAN, M.D.; JAMES M. FLINT, M.D.; J. A. KIDDER, M.D.; WILLIAM LEE, M.D.; R. LORINI, M.D.; WASHINGTON MATTHEWS, M.D.; C. S. MINOT, M.D.; H. C. YARROW, M.D. Edinburgh and London: Young J. Pentland.

THERE is perhaps no medical scientist in the civilised world more competent for the task of undertaking a work such as the one under notice than the accomplished author whose name stands first upon the title-page of the "National Medical Dictionary." That Dr. Billings, whose ripe scholarship and familiarity with general medical literature are universally acknowledged, should bestow his *imprimatur* upon a work, especially of the class to which this belongs, is sufficient to guarantee its excellence. The best and most elaborate English Medical Dictionary heretofore published is undoubtedly that of Dunglison. That, however, aspired to the rank of an encyclopædia, and extended its scope beyond the limits of a lexicon proper, to which the "National" confines itself. The object of this Dictionary, as set forth in the preface, "is to furnish to students and practitioners of medicine a clear, concise definition of every medical term in current use in English, French, German, and Italian literature, including the Latin medical terminology of all of these languages." Its scope therefore is one which will at once satisfy the student and meet all the requirements of the medical practitioner. Clear and comprehensive definitions of words should form the prime feature of any dictionary, and in this one the chief aim seems to be to give the exact signification and the different meanings of terms in use in medicine and the collateral sciences in language as terse as is compatible with lucidity. The utmost brevity and conciseness have been kept in view. The work is remarkable, too, for its fulness, dealing as it does with the definitions of no less than 84,844 words and phrases, of which number 25,496 are Latin, 9158 French, 16,708 German, and 6514 Italian. The enumerations and subdivisions under each word-heading are strikingly complete, as regards alike the English tongue and the languages chiefly employed by ancient and modern science. It is impossible to do justice to the dictionary by any casual illustration, but by taking such a simple word as "water" we may be enabled to give some idea of the scope of its pages. We are directed to AQUA (L.), EAU (F.), WASSER (G.), ACQUA (It.). Then follows a list of the compound words, from which we select for definition water of ammonia, water arum, water on the brain, water braxy, water

brash, water pang, water target, water pox, water venom globulin, &c., and find a ready means of satisfying ourselves on the signification of each of these terms. Then on turning to the German word "wasser," we have definitions for wasserartz, wasserbalg, wasserbruch, wasserdoktor, wasserfrei, wasserglas, wasserhaut, wasserkolk, wasserkopf, wasserpocken, wasserschlag, wassersucht, wasserwuth, and a great many others. By referring to the French word "eau," or to the Italian "acqua," a similar list might be given. From this example it will be seen that this Dictionary presents to the English reader a thoroughly scientific mode of acquiring a rich vocabulary and offers an accurate and ready means of reference in consulting works in either of the three modern continental languages which are richest in medical literature. Numerous illustrations of interesting and important words, not generally known, but in common use in many parts of the country, might be given from this work. In this connexion attention may be called to such examples as "ferntickles," "frogface," and "fivefinger." To add to its usefulness as a work of reference some valuable tables are given dealing with doses, antidotes, thermometric scales, inch and metre system of numbering spectacle glasses, average dimensions of the fœtus at different ages, the weight of the organs of the human body, and some others. These tables are not mere compilations, but are the result of a considerable amount of new experimental study. Another feature of the work is the accuracy of its definitions, all of which have been checked by comparison with many other standard works in the different languages it deals with. Dr. Billings and his eminent collaborateurs have had access to all the literature of the civilised world, and have employed exceptional industry and capacity for acquiring and systematising the knowledge, which is of necessity obtained only from a very wide field of research. Apart from the boundless stores of information which may be gained by the study of a good dictionary, one is enabled by the work under notice to read intelligently any technical treatise in either of the four chief modern languages. There cannot be two opinions as to the great value and usefulness of this dictionary as a book of ready reference for all sorts and conditions of medical men. So far as we have been able to see, no subject has been omitted, and in respect of completeness it will be found distinctly superior to any medical lexicon yet published. We are glad to congratulate the author and his fellow-labourers on supplying the medical world with a book that contains "information which can only be found in large libraries," and which embodies "the result of extensive research among the best authorities"; and further, in having succeeded in making the present volume, in respect alike of appearance, type, and fulness of contents, a dictionary worthy of its title.

Therapeutisches Lexikon für Praktische Aerzte. Herausgegeben von Dr. ANTON BUM. Vienna and Leipsic: Urban and Schwarzenberg.

WE have received the first two portions of this German cyclopædia. It deals principally with the therapeutical aspect of diseases, and its scope may be summed up in the adage "Primum diagnosis, summum therapia," which is found on its title page. It contains numerous formulæ showing how best to combine certain drugs which are being described, and it is very fully illustrated with well-executed woodcuts of anatomical preparations, diagrams, and medical instruments of every variety. Much valuable information on various subjects which have recently occupied the attention of medical observers are included within its pages, and it will no doubt prove a useful addition to any medical library.

New Invention.

TOOGOOD'S LACTOTHERME.

THE LACTOTHERME, or infant's portable milk stove, supplied by William Toogood, of Burlington-gardens, is an extremely neat and serviceable instrument. It is intended to maintain a constant moderate temperature, and the arrangement of the thick inner coating of felt is well calculated to attain this object. The apparatus is divided into two compartments, the upper acting as the receptacle for the feeding-bottle, which is readily inserted and held in position by the folding lid. The lower compartment supplies the required heat by burning either a specially prepared carbon block or a floating wick and colza oil. In the former case combustion is so slow that comparatively few noxious fumes are evolved. The apparatus is so simple and so cleanly that it can be used with comfort and safety in travelling. It is supplied at moderate cost in japanned iron, polished brass, or nickel plated.

THE NAVY ESTIMATES.

IN the estimates for 1890–91 the amount required for the salaries and allowances of medical officers, including those employed at the Admiralty, is £140,172. The *personnel* of the department consists of 1 director-general, 2 inspectors-general, 9 deputy inspectors-general, 57 fleet surgeons, 92 staff-surgeons, and 222 surgeons, making a total of 383 officers. Of these 313 are estimated for "service afloat" and the remainder for the hospitals and other establishments. Provision is made for 14 medical officers on half-pay, 2 inspectors-general, 3 deputy inspectors-general, 1 fleet surgeon, 2 staff surgeons, and 6 surgeons, by a vote for £4435. The number on the retired list is estimated at 17 inspectors-general, 9 deputy inspectors-general, 128 fleet surgeons, 49 staff surgeons, and 39 surgeons, making a total of 242 officers, and requiring a sum of £87,712. For the nursing staff there are 3 head sisters and 15 sisters for the hospitals at home, and 3 sisters for the hospital at Malta, and 191 stewards and others on the sick berth staff. There are 225 widows of medical officers in the receipt of pensions amounting to £14,182. A sum of £415 is taken for expenses connected with the candidates for the Naval Medical Service, the probable number of whom is estimated at 75 for the year. The allowance is continued of £150 to one of the fleet surgeons and of £50 to one of the surgeons at Haslar for medical instruction to the officers joining the service, and of £50 to one of the surgeons for instructing the sick berth staff. A contribution of £2100 is taken for the lock wards at Portsmouth and Devonport Hospitals, and of £25 for the Lock Hospital at Hong-Kong. Three medical officers are in the receipt of £100 a year each as pensions for good and meritorious services, and there are seven who have pensions for wounds and injuries received in the service.

Among the votes for works, buildings, and repairs, the following appear to have a special bearing upon the health of the men. At Portsmouth, for the seamen's barracks, £20,625; at Chatham, for new quarters for non-commissioned officers, and improving existing quarters in marine barracks, £455; at Walmer, swimming bath, £1000; at Malta, new water mains, £2050; and at Esquimalt, for new hospital buildings, £3055. There are probably also other improvements, which are included under the heading of minor new works and repairs, the details of which are not given. The drainage works at Malta appear to have been completed, as the contribution to them paid by the Admiralty disappears from the estimates.

THE ROYAL MEDICAL BENEVOLENT COLLEGE has received a legacy of £400 from the late Mrs. Price of Leamington, and also £250 assigned to it by the trustees of the late Mr. Daniel Procter of Manchester, who left a large residue at their disposal for charitable purposes.

THE LANCET.

LONDON: SATURDAY, APRIL 5, 1890.

MR. GLADSTONE'S speech at the opening of the new Medical College at Guy's Hospital was one of his happiest performances. We could almost be angry with the political system for engrossing a mind that so enjoys to roam at large in other spheres of thought, and which could so easily impress itself on other callings and pursuits. But this were an idle exercise, and we shall content ourselves with thanking Mr. GLADSTONE for including the medical profession in his regard, and for taking an opportunity of telling the public his estimate of Medicine and of its prospects. Our readers will all have read Mr. GLADSTONE'S speech in more or less detail. But, what is of still more importance, the public have read it, and we venture to believe that no man who has studied it, whatever may be his political bias, will fail to think more highly both of the medical profession and of Mr. GLADSTONE. If we venture to criticise some of its suggestions and demur to his simple theory of the origin of the profession with herbalists and barbers, we not the less admire Mr. GLADSTONE'S spirit and the clear perception he shows of the progress and claims of a profession which one who has always been so vigorous and so healthy might have easily overlooked. It says not a little for those representatives of the profession who have been brought into contact with Mr. GLADSTONE on the few occasions on which he has needed its assistance that at eighty years of age he is able to deliver a speech which so eloquently sets forth "the marvellously progressive character of medicine." The staff of Guy's Hospital may be specially congratulated on having their new college and all its merits, with their financial genius, and their philanthropic motives, so liberally recognised. Such a start should secure the success of an undertaking in itself so wise.

The only fear is that too sanguine and roseate a view may be taken of the financial and social position and prospect of the profession. Mr. GLADSTONE is perhaps not far wrong in assigning the time of Dr. MEADE and Dr. FREIND as that in which the medical profession began to be recognised "as a continuous profession, filling a great part in society, enjoying respect in a high degree, and recognised as a great member of the body politic," though we should have thought he might have gone a little further back when we remember that LINACRE secured the foundation of the College of Physicians in 1518 (whose letters patent incorporated all physicians in London as one faculty and college), who was learned enough to read ARISTOTLE in the original, and, more wonderful still, to teach ERASMUS Greek; and that SYDENHAM was born fifty years before MEADE, not to mention HARVEY, whom indeed Mr. GLADSTONE did not forget, but seemed to regard as more a phenomenon or a philosopher than as a physician. It cannot be contested that the surgical half of the profession was more tardy in its advance towards scientific methods and social position, and Mr. GLADSTONE rightly traces the beginning of a better time for surgery and for surgeons to the work and ways of JOHN HUNTER, from whose time surgery has proceeded by leaps and bounds, and now invades many a position which physicians had considered exclusively their own. The progress of civilisation may be thought by many to be unfavourable to the prospects of Medicine. Great classes of disease are being elucidated. The preventability of many of them is being demonstrated so clearly that it will be the pure fault of society or of the State if they are not extinguished—not the fault of the medical profession, which is as enthusiastic in its efforts to prevent disease as to cure. More than that, the general intelligence of the people is being so developed that they can see for themselves the coarse causes of disease, and avoid them. Still, Mr. GLADSTONE assures us that our occupation is neither gone nor going; and he even tells us that the growth of civilisation carries with it the production of many new forms of human infirmities and disease, and that men's wants in the medical sphere are the opportunities of the medical man. The benevolence of the profession is no doubt great, and was recognised by Mr. GLADSTONE. But as disease becomes more preventable and men become richer, there will be less excuse, when it does occur, for acting on merely benevolent principles, or for underrating the value of medical service, as representing more than ever labour and special knowledge. Men will think more of the physician, and not less, if he sets a little higher value on his art and on his science, and gives it to be understood that, like other good things, they have to be paid for. Still, we must warn those who are in search of wealth to consider well before they enter the profession. Mr. GLADSTONE told his hearers that even in the early days of professional life the young medical man's financial receipts would compare favourably with those of either the young minister or the young lawyer. This is not, perhaps, saying much, and yet it may easily lead to expectations that are not likely to be realised. When Mr. GLADSTONE spoke he was fresh from the perusal of the remarkable will of Sir WILLIAM GULL, which seems to have surprised him as it did many others. It is impossible to draw general conclusions from such an exceptional case. Even if we assume that so large a fortune was made entirely by professional fees—which we should doubtless be wrong in doing,—the fact would throw little light on the modest average income of medical men, and the hard lot of many hard workers in the profession. There have always been physicians who made large incomes. RADCLIFFE had not been settled a year in London when he found himself making twenty guineas a day, and out of his great fortune, so acquired, there came, amongst other things, the Radcliffe Library, and the Observatory, the Radcliffe Travelling Fellowships, and the Radcliffe Infirmary of Oxford; and there were not of course in his day the chances of lucrative investment which now a fashionable physician is in a good position for enjoying. But such instances throw little or no light on the common lot of practitioners of medicine. We heartily agree with Mr. GLADSTONE in thinking it desirable that such instances of professional reward and wealth should be multiplied, as a set-off against the influence of wealth acquired in the ordinary ways of commerce. If the profession duly cultivates

its own efficiency and rises to a proper self-respect they will be multiplied; but they will always be exceptional, and should be excluded from the calculations of those entering the profession, whose satisfactions, while not small, are by no means of the financial order, and are less likely than ever to be so in the present overcrowded condition of our ranks.

IN the discussion which followed Dr. SAVAGE'S paper on the Warnings of General Paralysis of the Insane, at a recent meeting of the Harveian Society, great interest was aroused by the remarks of Mr. HARRISON CRIPPS on two cases of general paralysis in which he had trephined the skull, and allowed the subarachnoid fluid to drain away. The results were considered by Mr. CRIPPS to be encouraging, although he admits that sufficient time has not elapsed since the operation to enable an opinion to be formed as to its permanent effect in these cases. Both were undoubted cases of general paralysis, and were under the care of Dr. CLAYE SHAW, who advised the operation. The first patient (whose case has been published by Dr. SHAW) was operated on by Mr. CRIPPS in July of last year. The operation was followed by a remission of symptoms so marked that the man was discharged from the hospital as "no longer insane." During the last month, however, as Mr. CRIPPS informed the Society, signs of progress of the disease have shown themselves, the patient having had several epileptiform convulsions. The second case was operated on only a few weeks ago, and in this instance also there was a marked remission of the symptoms immediately after the operation. Whether this is temporary or not time will show, and we confess that we do not feel sanguine as to the probability of permanent benefit being derived from operative interference in this disease. There is no form of mental disease in which the morbid appearances are so definite, or have been so carefully studied, as in general paralysis, and the views of Dr. CLAYE SHAW and Mr. CRIPPS do not appear to fit in with established facts connected with the pathology of the disease. At a necropsy in such a case the convolutions of the brain, and particularly of the frontal lobes, are found generally wasted and shrunken, and the ventricles dilated and containing an excess of clear fluid. Similar fluid is found between the surface of the brain and the skull, and is usually regarded as compensatory for the shrinkage of the brain. Dr. CLAYE SHAW and Mr. HARRISON CRIPPS, however, considered that the fluid might be actively secreted, and, by compressing the brain, might cause the wasting of the convolutions, and consequently thought that the removal of part of the dura mater and withdrawal of fluid might be of the same efficacy as iridectomy in glaucoma. Without stopping to point out the difference between the conditions existing in the eye and in the brain, we may mention the circumstances which Mr. CRIPPS considered as supporting their theory. The first was that the dura mater bulged when the trephined portion of bone was removed; but this is surely not an uncommon occurrence in cases where there are absolutely no symptoms of increased pressure. The second was the marked improvement which followed the operation, which he attributed to the relief of tension caused by the removal of subarachnoid fluid at the operation. It would be rash, however, to rely too much on this remission until it has been proved to be permanent. Dr. SAVAGE referred to the well-known fact that frequently a serious illness, such as an attack of one of the acute specific diseases, will be followed by a similar remission of the mental symptoms. On pathological grounds, too, we should doubt the probability of the good effects of such treatment being permanent. In the first place, we cannot agree with Dr. CLAYE SHAW and Mr. CRIPPS that the wasting of the brain is secondary to the pressure of the excess of fluids, since the effects of such pressure would be to produce entirely different appearances from those seen in general paralysis. In cases where there is sufficient excess of subarachnoid fluid to produce any compression of the cerebral substance there is accompanying it excess of ventricular fluid, distending the ventricles. The fluid on the surface tends to gravitate to the base of the brain, and the convolutions become flattened on the surface, and also pressed against one another laterally, so that the sulci become almost obliterated. In general paralysis, however, the convolutions are found uniformly wasted, and the wasting affects the grey matter lining the sulci as well as that on the surface of the convolution, so that the sulci, instead of being less obvious than usual, are extremely conspicuous. Further, the pathological condition of the convolutions themselves does not favour the idea that the change commences on their surface in consequence of increased pressure. The earliest changes appear to be chronic inflammatory exudations from the small bloodvessels, accompanied by a deterioration of the highly organised nervous structures, and particularly of the neuroglia, which becomes degraded into a coarser kind of fibrous tissue, which tends to shrink, like that in a cicatrix, and so produces the wasting of the convolutions which has been described. Probably this coarse pathological change is preceded by finer though as yet unrecognisable changes, but which, as Dr. SAVAGE showed, may give rise to symptoms even years before the disease becomes active and progressive. Dr. SAVAGE believes that in not a few cases local injury, and more particularly local syphilitic lesions, may be the starting point in a worn-out or over-wrought brain of these degenerative changes. In such cases, if the mischief can be localised sufficiently early, it is quite conceivable that trephining might lead to the arrest of the disease. It is probable that general paralytics have been trephined in the past for other reasons, such as fracture of the skull, and it would be of the greatest value if any observers who have notes of such cases would publish them and describe the subsequent progress of the patients. While congratulating Dr. SHAW on his enterprise in endeavouring to bring under control a disease hitherto considered progressive and incurable, and Mr. CRIPPS on the immediate success of his operative procedure, we feel bound to express doubt as to whether the proceeding has a sound scientific basis, and as to whether it is likely to have a permanently beneficial effect.

"MENS sana in corpore sano," as representing the perfection of humanity, is a maxim that has at least the authority that belongs to age, and to its acceptance and adoption by all the ruling nations of past times. In days not yet far removed the last half of the adage was in

this country alone regarded as sufficient for success in life, and many a young man was selected to fill important offices in the State because his aspect and manners happened to be prepossessing, though subsequent experience too often showed that his mental faculties were very inadequate for the duties that devolved upon him. So glaring and so frequent were the errors thus committed that the system of examinations was instituted as a remedy. It proved a death-blow to nepotism and to selection from personal appearance alone. By it an attempt was made to obtain the sharpest intellect, to the utter exclusion of any consideration of the body in which it was contained. A revolution was swiftly effected. An active and vigorous lad who happened to be incapable of learning with rapidity and of reproducing with facility a multitude of facts in many subjects had no chance of success. The times were favourable to the sharpwitted and early trained intellect, and the best posts fell to the youths who, however physically weak, were gifted with a good memory, and the facile tongue and pen of a ready speaker and writer. But once more the pendulum is swinging back. It is beginning to be recognised that precocious intellects are not always the best, and that those who are endowed with full physical powers are likely, as life advances, to acquire those qualities of the mind which fit the possessor to become a leader of men, and which, in the position we hold as the greatest colonisers the world has known, are of priceless value in dealing with the nations with whom we are thrown into relation. A memorandum has lately been submitted by the Council of the British Association for the Advancement of Science, chiefly, we believe, at the instigation of Mr. FRANCIS GALTON, to the War Office, the Admiralty, the Secretary of State for India, and the Civil Service Commissioners, which recommends the introduction of a system of marks for physical efficiency in the examinations for entrance into services where high physical powers are important. It would appear that it is much more easy to examine and adjudicate upon physical than upon mental qualifications. Thirty-two youths, Mr. GALTON tells us, the majority of whom were candidates for the army, were inspected and marked by the medical men sitting in separate rooms. The marks that were assigned to them by two medical men who had received the same general instructions, but who were otherwise acting independently, were found to agree within narrow limits; yet when nineteen of these youths, who, it may be said in passing, were Eton boys, were directed to write an English essay, the marks given by two other examiners, also acting independently, only agreed one-half as well as those given by the medical men. The tests which it is recommended should be employed are the breathing capacity and the muscular strength (both being estimated in relation to the height and the body-weight), the rapidity of muscular action, the readiness of the nervo-muscular apparatus to respond to a stimulus (as shown by the time required to perceive and register a signal made either to the eye or to the ear), the sharpness of vision and keenness of hearing, and, finally, the existence of normal colour vision. It is pointed out that the experience gained by the measurement of about 2000 students at Cambridge conclusively proves that success in literary examinations is in no way connected with stature, weight, strength, or breathing capacity, and but slightly with keenness of eyesight. Such differences as there appear to be, in these respects, between the men who obtain high honours and those who take an ordinary degree are small, and can be accounted for. Successful literary men have probably great nervous energy, perseverance, and power of concentrating their efforts, which would cause them to utilise such physical powers as they possessed with much effect, but they may be shown to be neither superior nor inferior in these particulars to those who fail.

The result of these inquiries is that the Council of the British Association ventures to submit to the authorities of the several departments of the Army, Navy, Civil Service, and India the following recommendations:—

"(1) That an inquiry should be held as to the best system of assigning marks for physical qualifications, on the double basis of inspection and anthropometry, with a view to its early establishment as a temporary and tentative system. (2) That the marks to be given under this temporary system should be small, so as to affect the success of those candidates only who would be ranked by the present examinations very near to the dividing line between success and failure, and whose intellectual performances would consequently be nearly on a par, though they would differ widely in their physical qualifications. (3) That a determination should be expressed to reconsider the entire question after the experience of a few years."

These recommendations appear to be very reasonable, and we trust that they may be seriously considered, and, if found to be feasible, acted upon by those departments of the State in which it is desirable that there should be a high degree of physical as well as of intellectual vigour.

Annotations.

"Ne quid nimis.'

ROYAL COLLEGE OF PHYSICIANS.

ON Friday, the 28th ult., a special comitia of the Royal College of Physicians was held, in order to receive the Report of the Conference of the two Colleges upon the reply to the Senate of the University of London, and to nominate delegates to confer with the Senate. All the members of the committee, with the exception of Dr. Pye-Smith, who is a member of the Senate of the University, were nominated for this purpose. On Monday, the 31st ult., another special comitia was held, the President, Sir Andrew Clark, Bart., in the chair, the chief purpose being to elect a President according to statute. Certain routine business was transacted before this matter was reached. A letter was read from Dr. R. J. Lee, offering to the College a collection of drawings illustrative of the nervous supply of the heart, uterus, &c., made under the superintendence of the late Dr. Robert Lee. The letter was also accompanied by copies of correspondence between Dr. R. Lee and Sir T. Watson in 1858, in which Sir T. Watson refers in eulogistic terms to the work on the subject which Dr. Lee had sent to him. The gift was accepted with thanks, and, on the motion of Dr. Dickinson, seconded by Dr. Barnes, the Museum Committee were instructed to provide suitable accommodation for the drawings, together with those presented by the late Dr. Richard Bright. A letter was read from Dr. Balfour, giving a statement of the proceedings of the Army and Navy Commission, upon which he served. Dr. Balfour pointed out that, as the Secretary of State was not prepared to carry out the recommendations of the Commission, its labours had been largely thrown away. He had himself felt bound to dissent from one of the recommendations, which was based on an erroneous

conception of the duties of medical officers, who are concerned as much with the prevention of disease as with its treatment. On the motion of the Registrar, seconded by the Senior Censor, Dr. Balfour's letter was entered on the minutes. Dr. Quain moved, and Sir Joseph Fayrer seconded, a vote of thanks to Dr. Balfour for his services on the committee. A memorial from an association protesting against certain "experiences and proposals" of Dr. Brown-Séquard was read; also a communication from the Toronto University in reference to the destruction of the University library by fire. On the motion of the Registrar, seconded by the Senior Censor, certain alterations in the by-laws of the College, rendered necessary by the new arrangements for the appointment of Examiners in Public Health and by the abolition of the offices of Vice-Presidents, were passed for the second time. The President then delivered an address, in which he stated that during the past year the College had lost by death 10 Fellows, 10 Members, 23 Licentiates, and that 2 Members had resigned. The additions comprised 12 Fellows, 32 Members, 477 Licentiates, and 29 "Diplomates in Public Health." Of the deceased Fellows he selected for special biographical comment the names of Dr. Owen Rees, Dr. C. B. Radcliffe, Dr. T. K. Chambers, and Sir W. W. Gull, Bart., and then passed to review the work done by the College during the year. He noted the resolution passed at the instance of Dr. Allchin, which required the resignations of Members or Fellows to be formally accepted by the College, and afterwards referred to the changes made in the library. Sir Andrew Clark here stated that he had presented to the College a collection of standard works to form an "Examiners' Reference Library," in order to meet a want which the College library did not adequately supply. He referred to the appointment of Dr. E. Liveing as Registrar, and alluded to the admirable manner in which he had performed his duties, and also to the retention by the College amongst its officers of Sir Henry Pitman as Emeritus Registrar. The Censors Board had, he said, been largely concerned with the investigation of complaints of "unprofessional advertising," and he stigmatised what he feared was a "growing tendency" as degrading and injurious to the profession. The Harveian oration and dinner next received notice. The steps taken by the College to secure the privilege to students of clinical work in the fever asylums were related; and, after some reference to the relations between the College and the Government, the President detailed the proceedings which had been taken upon the report of the Royal Commission to inquire into the need for a Teaching University for London, and upon the invitation of the Senate of the existing University to a conference upon the scheme which had been drawn up for the reconstitution of the University. Whatever happened, he had no fear that the College would cease to be a licensing body, and he suggested that in certain eventualities a Royal Faculty of Medicine in London might be created by bringing the medical schools into conjunction with the Royal Colleges. Reference was made to the satisfactory coöperation with the College of Surgeons in examinations; the unveiling of the statue of Her Majesty the Queen in the Embankment Hall by the Prince of Wales, and the completion of the new laboratories and appointment of a director (Dr. Sims Woodhead) were also alluded to. A cordial vote of thanks to the President for his address and for his handsome gift was passed on the motion of Sir Henry Pitman, seconded by the Senior Censor. The ballot for the Presidency was then taken, when Sir Andrew Clark was declared elected by ninety out of ninety-nine suffrages, the remaining votes being given to Dr. Quain, Dr. Wilks, Dr. Johnson, Sir Dyce Duckworth, Sir Joseph Fayrer, and Sir W. Roberts. Sir Andrew Clark, in a few well-chosen words, thanked the Fellows for his re-election, and the proceedings terminated.

ROYAL MEDICAL BENEVOLENT COLLEGE.

IT is not often that a charity has to close the list of stewards who are willing to assist in securing the success of an entertainment in aid of its funds. We congratulate the Council of the Royal Medical Benevolent College on being in this enviable position, and we wish them success. Doubtless some have sent in their names in consequence of the well-deserved popularity of Sir James Paget, the chairman of the dinner on this occasion; but we hope there are many who accept office in the earnest conviction that the funds collected by the Council of Epsom College cannot be better spent than in bringing comfort to the aged, and in giving to the young a thoroughly sound education, intellectual and moral, to fit them for whatever position in life they may be called upon to fill. We would draw the attention of our readers to the letter of Dr. Holman (p. 775) respecting this admirable charity. We consider that the support which it receives from medical men is quite disproportionate to the good which it might effect, if further means were at its command, on behalf of our less fortunate brethren and those dependent upon them. We purpose in our next number to allude further to the excellent working of the Royal Medical Benevolent College, and sincerely trust that what we have to say will be the cause of adding very considerably to the financial results of the dinner on April 17th.

THE TANK TREATMENT OF TYPHOID FEVER.

THE plan of treatment of typhoid fever described in these columns by Dr. Barr of Liverpool has at least the merit of novelty. For we are not aware that such a proposal has been entertained from the days when Dr. Currie of the same city advocated—now nearly a century ago—the use of cold in fever, down to the systematic use made, with such excellent result, during the past fifteen years by Brand and his followers of cold bathing in typhoid especially. The conditions under which continuous immersion has been employed in therapeutics have been mostly those of local inflammatory general skin affection, the method being introduced and largely practised by Hebra in the treatment of extensive burns, variola, pemphigus, and other affections. But its application to fever cases has remained for Dr. Barr to initiate. No doubt the plan will be much criticised, almost as much by those who praise the good effects of the bath as an antipyretic agent as by those who adhere to the older lines of fever treatment. For there are difficulties in the efficient carrying out of this "tank treatment" which are not to be lightly considered. There is, first, the supply of suitable apparatus, which is only possible in a large public institution; next, the maintenance of an equable temperature of the water; and, most important of all, the need for most careful observation of the patient. These conditions were all admirably fulfilled in Dr. Barr's cases, and most of his patients seem to have taken kindly to the novel circumstances in which they were placed. We must, however, deprecate the practice of allowing the excreta to be passed into the water, to which our objection is based not merely on "æsthetic" grounds, as Dr. Barr puts it, but on the risk (that must be thereby multiplied) of the dissemination of the typhoid poison. Before the system can be received with favour, means must be devised to diminish this risk. The addition of antiseptics to the water is a process which, however rational, is not calculated either to allay one's fears of infection or remove the disagreeable nature of the thing. As to the effects of the treatment, the cases recorded, which include some of marked severity, substantiate the statements made by many authorities as to the calmative effect on the nervous system and the control of fever exercised by bathing. They show further that these effects are to be produced without

lowering the temperature of the bath below 90°, and by raising this as the body temperature approaches the normal. Nor can it be said that the prolonged immersion had any injurious effect. Although it does not seem to have materially shortened the fever this is hardly to be expected on any plan of treatment yet devised, although Brand claims it for his method when adopted sufficiently early. On the whole, the practice which has been brought under notice by Dr. Barr deserves the attention of the authorities of our fever hospitals, but we can quite imagine that many may fail to see that it possesses over other and less heroic measures any advantage sufficient at least to demand its substitution for them.

INDECENT ADVERTISING AND ITS CURE.

A CONVICTION at Cardiff last week encourages the belief that the Indecent Advertisements Act is not likely to become a dead letter through lack of energy on the part of the authorities. For circulating obscene handbills referring to certain diseases a man was condemned to a month's imprisonment. Such a penalty is in itself an indication of sound moral tone in the community which inflicts it. Its preventive efficacy may be counted on. In comparison, the imposition of a trifling fine, as in a case we noticed on February 8th, is of little value. We can only hope, therefore, that magistrates will in future be guided by such precedents as the former, and will incline rather to severity than indulgence in their treatment of a social pest at once most loathsome and most fatal to every right feeling. It is probable that offenders against the Act have already learned caution, for there may be noticed even in objectionable placards a certain reserve, which cannot indeed be attributed to modesty, but which evinces a wholesome dread of prosecution.

MOTOR PARALYSIS AFTER UNILATERAL ABLATION OF THE SEMICIRCULAR CANALS.

PROFESSOR EWALD of Strasburg has recently published in the *Centralblatt für die Med. Wissensch.* a brief account of some most interesting observations on the effects of experimental ablation of the semicircular canals on one side in pigeons and other birds. He removed the semicircular canals and the utricle in each case on the right side only, and filled the cavity thus made with platinum amalgam. The brain itself was not injured. Immediately after the operation the birds showed signs of weakness on the same side of the body. They could not spread the right wing nearly as far or as forcibly as the left. The loss of power in the legs was even more marked than in the wing, as was shown by the following experiments. The wings were secured and the bird held quietly in the hand. Threads were attached to both legs, from which weights could be suspended. It was found that while a weight of 150 grammes could be drawn up by the left leg, the right could not be moved when a third of that weight was attached to it. The motor paresis was also shown in another way. The wings were again secured by a band round the body, and the bird placed on a flat table. If any attempt were made to push the bird laterally, from right to left, it at once put out its left foot to try to prevent the movement, and if the pushing was continued the bird slid along the table, with the left leg still held stiffly out. If the bird were pushed from left to right, however, the effect was very different, as the weakened right leg could not be put out as a prop, and consequently the bird rolled over. He also noticed in the case of singing birds that after unilateral ablation of the semicircular canals there was lowering of pitch and "hoarseness" of the voice. In consequence of the position of the vocal organ in birds, no observation could be made as to whether there was unilateral paresis of the muscles concerned. Professor Ewald's paper appears to be only a preliminary communication, and it is to be hoped a more detailed account, with explicit particulars as to the methods employed, will presently be forthcoming. If the observations are confirmed, and it is satisfactorily shown that no parts of the brain itself sustained any injury, a most important and unexpected addition will have been made to our knowledge of the functions of the semicircular canals. It will be of great interest to ascertain whether this supposed connexion between these canals and motor power obtains in man. Unfortunately opportunities for satisfactory observations are rare. Although vertigo is most frequently attributed to disease of these canals, it is only in a few instances that disease limited to them has been observed by pathologists, and in his recent suggestive address to the Harveian Society, Dr. Buzzard adduced a considerable amount of evidence to show that in the majority of cases such symptoms are to be regarded as "bulbar" rather than "labyrinthine." In all cases, however, where there is good reason to suspect labyrinthine disease on one side, it is most desirable that accurate dynamometric observations be made and recorded, to determine the presence or absence of associated unilateral muscular weakness on either side.

MURDER OR SUICIDE?

AN inquest was recently held by Mr. Wynne Baxter at Bromley E., touching the death of John Penker, aged forty-six. The deceased had been strange in his manner for the past few weeks. He was found in a shed with his throat cut, and a dinner-knife lying by his side. The wound in the throat was five inches long. The principal vessels of the neck had been severed, the cut extending to the vertebræ. The wound was straight across, and apparently from left to right. Dr. R. J. Ferguson, who examined the wound, was of opinion that it was not a suicidal one, (1) because the wound was lower than is usual in cases of suicide, (2) because the direction was unusual, and (3) because the wound extended to the vertebræ and was finished equally on the two sides. The jury returned a verdict of "Suicide whilst of unsound mind." We are of opinion that in medico-legal works too great stress is frequently laid upon the direction and extent of wounds of the throat with a view to determine whether they are suicidal or homicidal. In one case of suicide which came to our notice, not only was the windpipe severed, but the œsophagus was completely cut across and the vertebra notched. We cannot quite endorse the view ascribed to Dr. Ferguson that directly the windpipe was severed the arm of a suicide would fall and the hand not have power to complete the cut, for it must be remembered that such an injury is inflicted with force and rapidity. Apart from these conditions, moreover, we see no physiological reason why a person who has severed his trachea should not be able to inflict further injuries upon himself.

OBSERVATIONS ON THE TEMPERATURE OF NERVES.

IN the last number of the *Journal of Physiology* an account is given by Dr. H. D. Rolleston of some experiments carried out by him to determine the presence or absence of alterations of temperature in a nerve trunk during the passage of nervous impulses. The thermometer used—that devised by Callender—was so delicate that changes of $\frac{1}{1000}$° C. could be recognised. The action of the thermometer depends on the changes in electrical resistance, which are produced by variations in temperature. This method has been employed for some time by Siemens for estimating extremely high furnace temperatures &c. The thermometer of Callender consists of five centimetres of

platinum wire, one-thousandth of an inch in diameter, which is arranged as a series of parallel folds, and insulated between two small plates of mica. The ends of the platinum wire are connected with a Wheatstone's bridge, and any variation in the strength of the current is indicated by a mirror galvanometer. Dr. Rolleston took two of these thermometers and wound round each the sciatic nerve of a frog, with the gastrocnemius still attached, so that there might be no doubt about the excitability of the nerve. Both thermometers were kept under exactly the same conditions, and most refined precautions were taken to eliminate any changes of temperature due to evaporation &c., or to the chemical changes in the adjoining muscle. The apparatus was then so arranged that the two thermometers exactly balanced each other, and that the slightest alteration in the temperature of either would cause a deflection of the mirror of the galvanometer. He then stimulated the nerve with a weak induced current, and on no occasion was there a rise of even a thousandth of a degree in the temperature of the nerve. He found that as the nerve lost its excitability and died, there was, on the contrary, a slow rise of temperature, without any external stimulation of the nerve. This loss of excitability and rise of temperature also occurred if the nerve were subjected to the action of too strong or protracted a stimulation. The temperature slowly reached a maximum, often rising a seventh of a degree centigrade, and then slowly fell again. Frogs only were experimented on, but it is to be hoped that Dr. Rolleston will be able to extend his observations to mammals.

THE REVERENCE OF MEDICAL STUDENTS.

AN evening contemporary recently contained a short article reflecting on medical students and their lack of reverence for the dead, observing very properly that the bodies of even waifs and strays who die in hospitals should be treated with respect. The basis of this sermon to medical students was very slight, consisting of the fact that the head of a woman had been found in Paris near a railway station, and that the police had come to the conclusion that it was the work of medical students playing a hoax on them. We think this is rather hard even on Paris students; but to base on such an incident a charge against medical students generally is not worthy of our contemporary. Medical students of this country, both in the hospital and the dissecting room, are taught lessons of humanity, and take kindly to such lessons.

LONDON SANITARY ADMINISTRATION.

AT the last meeting of the Sanitary Committee of St. Pancras, of which an account is given in the columns of an evening contemporary, the medical officer of health, Dr. J. F. J. Sykes, reported a number of premises under the Artisans and Labourers' Dwellings Act, 1868, and gave ample reasons why the vestry should proceed in respect of these houses. He further made a request which experience has shown to be very necessary—viz., that the Sanitary Committee should view the houses at once, as otherwise they might be patched up, and a few months hence there might be a protest against his action in reporting them. It is a not infrequent event for the owners of dilapidated property, when it comes to their knowledge that the medical officer of health has reported their houses under this Act, to commence without loss of time a number of superficial and decorative repairs: walls are covered with clean paper, ceilings are whitened, and the evils which led to their condemnation by the officer are thus covered up; they are left with an appearance of wholesomeness and cleanliness which makes a local authority very loth to insist upon substantial repairs such as their surveyor would specify. The St. Pancras Committee, who appear to be largely influenced by one of their number, are devoting themselves with great energy to the work of improvement in their district. It is to be hoped that there will be no interruption to these proceedings, and that the medical officer and the committee will be properly supported by the vestry. London is now suffering from the many badly-built houses which have been erected in comparatively recent years; in many suburban districts houses of this character are falling into decay, and the earnest efforts of sanitary authorities are required to overcome this difficulty. We are glad to see the St. Pancras Sanitary Committee seriously undertaking this duty.

CÆSAREAN SECTION AT KENSINGTON INFIRMARY.

IN regard to this case, reported in our issue of March 22nd, we indicated last week that we had received several communications, all more or less condemnatory of the course pursued by Dr. Haward Van Buren. In admitting reports of cases into our Mirror of Hospital Practice we do not necessarily always agree with the treatment advocated. We have often pointed out, in obstetrical cases, the necessity of carefully appreciating the indications for the respective operative measures, according to the degree of pelvic deformity and concomitant conditions, and of proceeding accordingly, before "the mother is exhausted by unavailing labour pains." We welcome reports of cases in which the reporters, honestly recognising their mistakes, have published their experience as a guide to others who may be placed in similar circumstances. Judging from the report of this case, there was, in our opinion, a decided want of precision in the physical examination of the pelvis. The interspinous measurement was nine inches and a half, which was sufficient evidence to cause a most careful investigation to be made of the exact reduction of the conjugate diameter of the pelvic brim, in order to determine the operative measures to employ. There are several details, especially in regard to the purely surgical aspect of the case, open to criticism. The marked improvements made in the various modifications of hysterotomy have caused a revolution in opinion as to the dangers of the operation in competent hands, and now craniotomy, as an alternative operation, is upon the defensive. We must remember that the success of Cæsarean section depends upon the early recognition of the imperative indications for the operation, the prior condition of the woman, the avoidance of all futile experimental attempts with forceps &c. to deliver per vaginam, and the employment of modern antiseptic measures.

LEPROSY IN NEW ZEALAND.

WE find by the latest news from New Zealand that two cases of leprosy were discovered in the same week. One was a Chinaman living in Auckland and the other was a Portuguese in the South Island. A correspondent informs us that these are by no means the first cases of leprosy that have been discovered in New Zealand. One person (a white man) suffering from tubercular leprosy died in Canterbury, New Zealand, two or three years ago, and occasional cases have been noticed amongst the Chinese. Dr. Thomson, in his well-known book, "The Britain of the South," described leprosy as existing amongst the Maories. No such cases are known at present, as the Maori leprosy seems to have been stamped out by a system of rigorous seclusion. The New Zealand Government should take prompt measures to get rid of this direful disease while it can be done easily and at little expense. The example of the Sandwich Islands shows how rapidly leprosy spreads when once introduced, and how

difficult it is to eradicate it when it has attacked any considerable number of the population. It appears that the Auckland leper was examined by Dr. R. H. Bakewell, formerly physician to the Leper Asylum, Trinidad. Dr. Bakewell's experience in the West Indies and South America entitles his opinion as to the nature of the disease to great weight.

DOG-OWNERS AND THE MUZZLING ORDER.

THE report of the conference on Jan. 22nd between Mr. Chaplin and a deputation of Kentish dog-owners, with reference to the recent muzzling order, has recently been published. It is of interest as affording a comprehensive statement of the chief arguments employed for and against this important sanitary measure. On the part of the deputation there was a general agreement as to the benefit conferred by the order in removing stray curs from our thoroughfares. As regards the general application of the muzzle, however, a totally different feeling prevailed. It was freely condemned as engendering by its irritation a snappish tendency, and even as predisposing to rabies. In some districts of Kent especially, where, it was alleged, hydrophobia was unknown, the disuse of this form of restraint was strongly advocated. The exemption granted to certain classes of animals—hounds, for example—was condemned as an injurious instance of class legislation. Mr. Chaplin's reply contained a full and well-reasoned answer to these various objections. He had no difficulty in showing that Kent is distinctly one of the infected counties, thirty-nine cases having occurred within it during last year. The application of simple registration as a remedy, though useful in a degree, was, he maintained, inadequate to meet the present serious development of the disease. Exemptions were justified by the extremely careful supervision observed in the cases above-mentioned, and the chances of comfort or discomfort in wearing the muzzle with any resulting nervous irritation were dependent entirely on the selective judgment exercised by dog-owners. A muzzle rightly constructed did not irritate, and it constituted the best-known preventive of canine hydrophobia. The fact that during its general application in London between 1885 and 1887 the number of cases fell from twenty-six to nine, rose again in 1888 during its disuse to 176, and was now increasing, affords a sufficient justification of the right hon. gentleman's view, which is that which we have ourselves always maintained respecting the muzzling regulations.

THE HYGIENE OF FLORENCE.

NOWHERE in Italy is the new Public Health Act carried out with more stringency than in Florence, where the Ufficio d'Igiene has just detected and brought to justice a number of adulterators of sweetmeats in which salts of copper had been largely used as colouring matter. Sundry wine-vendors have also had their stores sequestrated on account of the "falsificazione" of the liquors; and, most important of all, the Ufficio has made a series of searching investigations into the so-called "pozzi neri" and "pozzi d'acqua potabile" (cesspools and wells of drinking water), which have been found in dangerous proximity to each other. In Florence it is a punishable offence to allow these "pozzi neri" to debouch into the public drains, their contents being (normally) from time to time pumped out, and carried off to the fields. No fewer than seventy-four of these "pozzi," however, were found discharging into the drains, and causing pernicious effluvia. Again, out of ten "pozzi d'acqua potabile," seven were found contaminated with leakage from "pozzi neri" close by. It is fair to observe, however, that the "acqua potabile" supplied to the hotels and pensions, and the better quarters in general, comes from reservoirs outside the gates, and is as pure and salutary as drinking water need be. Meanwhile the Florentine Ufficio d'Igiene is to be congratulated on its energy and efficiency, and on the example it is setting to other Italian centres resorted to by the English-speaking public.

ABDOMINAL SURGERY IN CUBA.

ACCORDING to Dr. Barrena, the results of abdominal surgery, as practised by himself and some of the other leading surgeons in Cuba, have hardly been as satisfactory as could be desired. Of 39 cases of ovariotomy, 12 were fatal. Of 11 cases of hysterectomy no less than 9 were fatal; 3 cases of miomotomy, 3 of salpingotomy, and 1 of ligature of the tubes, were all successful, but 4 cases of exploratory incision proved fatal to 3 of the patients, and the only case of vaginal hysterectomy was also fatal. Altogether, out of 62 patients operated on, no less than 25 died. It is to be hoped that this courageous statement of actual facts may tend to deter surgeons, who might otherwise be induced by the brilliant results of abdominal operations frequently published, from entering with too light a heart upon operations of this nature. The unfavourable results referred to may, perhaps, be partially explained by the insanitary condition of Habana, and probably of other Cuban cities. This subject was also treated during the Congress by Dr. Wilson, who pointed out that the bad water and the want of a proper system of sewerage, together, doubtless, with the heat and moisture of the climate, raised the death-rate of Habana to a figure about double that which denotes the death-rate of London.

THE SALE OF POISONS.

A QUESTION of great importance came before the Lord Mayor at the Mansion House recently for magisterial decision. A chemist, who had sold a bottle of cough linctus containing acetate of morphine, was summoned under the provisions of the Pharmacy Act for not having labeled the mixture with the word "poison." For the defence it was contended that the statute intended only an uncompounded poison, and that a mixture containing a poisonous ingredient was not within its terms. It was, moreover, alleged that the practice of selling poisonous compounds without the warning label required by the Act is a very common one, and it appeared that the particular chemist who was defendant in these proceedings had acted in perfect good faith and with no suspicion that he was guilty of any illegality. In these circumstances it was only just that the penalty inflicted should be a light one, and to that extent we find ourselves in full accord with the Lord Mayor's decision. But we do not feel equally content with the criticism which he passed upon the language of the Act. He is reported to have said that the Act does not specify that a mixture containing poison was to be protected by the label, and, while not adopting the construction put forward by the defence, he appears, nevertheless, to have indicated so much sympathy with that view as to suggest that it would be desirable to amend the wording of the statute by the addition of words such as "any compound or mixture containing poison." This appears to us to be a singularly ill-advised comment. Many compounds contain poisonous ingredients which are, nevertheless, wholly innocuous. Common salt, for instance, contains chlorine, but in combination the chlorine is innocuous. What the statute says and what it means is that it shall be unlawful, except with certain safeguards, to sell a poison. A poisonous compound is just as much a poison as a poisonous element, and to include in the prohibition mixtures containing poisons, as distinct from poisonous substances *per se*, would be to extend the

application of the clause to compounds into which a poisonous ingredient enters, but only to be neutralised by another ingredient, or in so small a quantity that the compound is rendered harmless. This was certainly not the Lord Mayor's intention, and, if this would be the effect of such an alteration as he suggests, the mistake which he made arose merely from his overlooking the fact, sufficiently obvious nevertheless, that a poisonous compound is a poison, its composite character notwithstanding. The clause which was in question is, we think, singularly well drawn, and will not, we trust, be made the subject of rash or ill-considered amendments.

DISABILITIES OF IRISH DIPLOMATES.

ON the 25th ult., Mr. James Stewart, F.R.C.P. Ed., L.R.C.S.I., of Clifton, Gloucestershire, addressed a meeting of the Ulster Medical Society on the "Disabilities of Irish and Scotch Diplomates for the Honorary Staff Appointments in English Public Hospitals." In the course of his address he pointed out that at the present time no less than sixty-eight large public hospitals and county infirmaries in England had adopted the exclusive rule, which ordained that "no person be eligible to the office of physician or assistant physician unless he exhibited to the committee of election satisfactory proof of being a Fellow or Member of the Royal College of Physicians of London or a Graduate of a University of Great Britain or Ireland, and be in practice solely as a physician." The operation of this rule would exclude many distinguished men, such as the present Medical Director-General of the Royal Navy, from being elected on the honorary staff of one of these English hospitals. There seemed to be an undoubted grievance in this. In London alone there were 486 practitioners who had been taught in Irish medical schools, or who held Irish diplomas; while in the provinces the number of Irish diplomates was upwards of 1000. Seeing that they had failed to get the General Medical Council to assist them in this matter, he thought that the question should be brought before the governors of each of the hospitals in which the monopoly existed, and further advised his hearers to support the Irish Medical Schools' and Graduates' Association, which was an organisation usefully employed in educating public opinion in the way he had indicated.

VIEWS AS TO QUARANTINE IN THE STATE OF ILLINOIS.

ACCORDING to the Tenth Annual Report of the State Board of Health of Illinois it would appear that Dr. J. H. Rauch, the well-known secretary to the Board, holds very strong views as to the expediency of the adoption by the United States of a system of quarantine restriction in the case of cholera. He recalls the circumstances of the steamships *Alesia* and *Britannia*, by means of which cholera reached the shores of the States in 1887, and he explains the measures adopted at the quarantine station Staten Island. And, discussing these in connexion with the enormous immigration from European countries, he points out how great is the interest of his own State in coast quarantine; and he gives his opinion that the United States can only secure themselves by resisting the first beginnings of cholera, a process which means its absolute exclusion. Maritime quarantine should, he contends, be administered not by individual States, but by the National Government, and he would have the President invested with power to issue a proclamation, when needed, for the prohibition of all immigration from districts where cholera is known to prevail. Apart from such action, he does not believe that, under the circumstances of the States, any amount of sanitation, disinfection, and cleansings will suffice to exclude so capricious a disease as cholera. Referring to Great Britain, he says that arguments against quarantine which are valid enough here do not apply to the States. The only large bodies arriving by ship into England are those who, after a long voyage, reach our shores in troopships, where they are under efficient sanitary and medical supervision; and he remarks that we have nothing at all comparable to the vast hordes of immigrants who are constantly reaching the ports of the States. The poverty, squalor, and uncleanliness of such steerage passengers, with the prevailing "crowd-poison," amongst a set of people which includes the moral, social, and mental wrecks of other countries, are features that need, he thinks, to be met by exceptional measures.

VENTILATION OF LAW COURTS.

FROM Chelmsford comes a report that Mr. Justice Denman had occasion a few days ago to complain of a very unpleasant smell as of sewer air in court, and that, upon calling on the court-keeper for an explanation, he was informed that the bad odour came from the prisoners' department. The judge remarked, as we ourselves have on several occasions in these pages, that it was disgraceful that prisoners should be detained in custody under such conditions as were thus brought to his notice. He seems to have considered it an aggravation of the mischief that possibly innocent men might be enduring the inconvenience and risk of confinement amid such filthy surroundings. That may be so, but for our part we are content to demand proper sanitation in the name of common humanity, whether for guilty men or for innocent. The torture of a pest house would be an exceedingly bad form of punishment, even if it were tolerated by law. We had hoped that little by little the accommodation provided for prisoners at the assizes awaiting trial was being bettered and brought up to date, and our readers will be aware that we have constantly recurred to the topic, and urged upon the authorities the importance of more speed in the matter of these improvements. We are glad to understand that the matter has now been made the subject of judicial comment, and brought in this authoritative way under the notice of the Home Secretary. It should be borne in mind by that Minister and his advisers that Chelmsford does not stand alone in this respect, and that the reform to which Mr. Justice Denman's experience points needs to be carried out on a national scale.

CHAMBERS OF COMMERCE AND CERTIFYING SURGEONS TO FACTORIES.

THE Associated Chambers of Commerce at their annual meeting passed a resolution alleging that the visits of certifying surgeons to factories and workshops were unnecessary because certificates of birth and education were forthcoming from other quarters. We cannot see the force of this objection. Such data in no way supersede the visits of medical men in their capacity of certifying surgeons, and to abolish such offices would be a retrograde step.

A PANCREATIC CYST.

DR. FILIPOFF reports in the *Khirurgicheski Vestnik* a case of pancreatic cyst occurring in Professor Grube's clinic in Kharkoff. The patient was a woman of sixty-five years of age, who had observed the existence of a tumour in the epigastrium for about three years. It was only, however, during the last five months that it had occasioned her much inconvenience. During this time it had increased considerably in size, and had given rise to dull aching, with occasional attacks of violent pain, dyspnœa, and vomiting. She had also become very thin. When admitted the tumour was found to be as large as a man's head, and freely

movable. It could be plainly separated from the liver, stomach, and spleen, and was diagnosed as either a pancreatic cyst, or a retention tumour formed in the omentum. On an incision being made, a dark-brown fluid of alkaline reaction poured out. It was found that the cyst originated from the head and part of the body of the pancreas. Part of the external cyst wall was cut away, and the remainder stitched to the abdominal parietes. The patient left the hospital cured in eighteen days.

A PRESCRIBER'S LAPSUS PENNÆ.

A MEDICAL MAN has just been fined by a Berlin court for a serious slip of the pen in a prescription. A lady having consulted him for night sweats, he prescribed atropine pills, each one containing 0·06 gramme (about a grain), instead of 0·006 gramme (about the tenth of a grain). The prescription was taken to a "druggist," not to an *apotheker* or pharmacist, and the assistant who dispensed it did not detect the evident slip of the pen; the consequence was that the lady took one of the pills and suffered severely from its toxic action, for which she was treated by the prescriber for a couple of days. The husband summoned both the medical attendant and the druggist, the result being that the former was fined £25 and the latter £10.

INFLUENZA IN CENTRAL AMERICA.

A CORRESPONDENT at the Military College, Guatemala, writes that the influenza appeared in that city about the end of January, first in the Artillery Barracks, and then in other barracks and large schools, but not in the Military College until a month later—first, the orderlies and servants were affected, then the soldiers, cadets, and officers. The attacks are described as commencing mostly with intense frontal headache, the pain then passing to the back of the head and lumbar region. Salicylate of soda and tincture of aconite were mainly employed, and also quinine, but in small doses and frequent intervals. Very little antipyrin was given. Most of the patients were able to resume their duties in three or four days, but in many a troublesome, dry, irritating cough persisted. The absence of coryza is noted as being remarkable. The outbreak occurred very suddenly and spread very rapidly, and, our correspondent adds, the place is situated ninety miles from the Pacific and 300 miles from the Atlantic seaboard.

SIR WALTER FOSTER AND THE MEDICAL OFFICERS OF IRISH PRISONS.

WE have no intention of taking any side in the sharp political controversies of the day, thankful as we are that our function is to deal with questions which generate no high temperatures. We see nothing to disapprove in serious questions being put touching the treatment of prisoners, either in England or Ireland, where there seems reasonable ground for thinking that they have been in any way neglected. But we venture to question the fairness of a medical man dealing out censure in a few lines, however smart, on his medical brethren. Sir Walter Foster is reported in the *Liverpool Courier* as follows:—"Sir Walter Foster then put a question as to two deaths which had occurred in Irish prisons from heart disease. If the nature of the case was not known, the prison medical officers were guilty of negligence; if it was known, the treatment was barbarous. He inquired on which horn of the dilemma the Chief Secretary chose to impale himself." Sir Walter Foster may be imperfectly reported. But we submit that it would require a great deal of knowledge of the prisons, of the prisoners, and of the conduct of the medical officers to justify such short, sententious condemnation as is dealt out here to medical men who were not present to answer for themselves. Surely medical members are expected to give, in the leisurely immunity of Parliament, judicial moderation to discussions affecting the professional character and the very humanity of members of the profession.

TREATMENT OF PHTHISIS IN CUBA.

AT the recent Cuban Medical Congress Dr. Saladrigas read a paper on Phthisis, in which he stated that twelve patients in the Hospital of Our Lady were treated by Dr. Bergeon's plan of rectal injections of sulphuretted hydrogen, with the result that eight of them were very much improved. Of these eight, two were known to have maintained their health, three had returned to the hospital after having been comparatively well for seven months, and the remaining three were still under treatment. These gaseous injections should not be resorted to where there is much haemoptysis, or where there is vascular disease or communication between the pleura and the lung. In six cases of phthisis Dr. Saladrigas has employed tannin, and from the results obtained, together with the fact that tannin has appeared to him to hinder the karyokinetic changes in cells affected by the tubercle bacillus, he is led to believe that tannin is a really useful remedy in phthisis.

THE LIVERPOOL PUBLIC ABATTOIR.

THE members of the medical profession of Liverpool have forwarded to the City Council a memorial signed by no fewer than 337 medical men, condemning the presence of the public slaughter-house and the noxious trades connected with it in the heart of the city and in the midst of a dense population, and praying that the City Council would confirm the refusal of the Finance Committee to grant a renewal of the lease to the Abattoir Company. It is curious to note that this abattoir has been consistently condemned by all the medical officers of health which Liverpool has ever had, and the signatures appended to the memorial should afford ample evidence to Dr. Stopford Taylor, the present medical officer, of the support of his medical brethren, and render it easy for the Council to prohibit the perpetuation of an institution which is directly opposed to all just sanitary principles.

STUDENTS AT THE PARIS FACULTY.

THE total number of students enrolled at the Faculty of Medicine, Paris (*La France Méd.*, No. 13), during this winter session was 3793—viz., first year, 1067; second year, 481; third year, 616; fourth year, 317; fifth year, 1312. This number includes 121 female students, of whom 14 are of French nationality, and the rest thus assigned: American 1, English 9, Austrian 1, Greek 1, Russian 93, Servian 1, Turk 1; whilst of the male students 3151 are French and 622 foreign, so that about one-sixth of the Faculty is formed by foreigners. No doubt this number would have been larger still had it not been that the Ecole d'Anatomie has been compelled to refuse many applications from foreigners owing to the paucity of anatomical subjects.

INTERNATIONAL MEDICAL CONGRESS.

THE following is the programme for the section of Laryngology and Rhinology at the forthcoming Congress in Berlin. Dr. B. Fraenkel of Berlin will open the proceedings with an address upon Laryngology since the last International Congress, 1887. Discussions upon the following subjects:—1. Diagnosis and Treatment of Laryngeal Cancer, to be opened by Mr. H. T. Butlin (London) and Dr. J. Gottstein (Breslau). 2. Deviations and Ridges of the Septum Narium, by Dr. J. Moure (Bordeaux) and Dr. A. Hartmann

(Berlin). 3. Diagnosis and Treatment of Diseases of the Accessory Cavities of the Nose, by Dr. G. McBride (Edinburgh) and Dr. Ph. Sheeh (Munich). 4. Syphilis of the Upper Air-passages, by Dr. Schrötter (Vienna) and Dr. Lefferts (New York). 5. Acute Infective Inflammations of the Pharynx and Larynx, by Dr. Massei (Naples) and Dr. M. Schmidt (Frankfort). 6. Intubation, by Dr. O'Dwyer (New York)—in the section of Pædiatrics.

THE ANTI-VACCINATIONISTS OF GUILDFORD.

"WHEN the cat is away, the mice play." Small-pox is in abeyance just now over most of the country. There has hardly been a death in London from it for twelve months, and the small-pox hospitals have been empty. So the fanatics are having it all their own way, and, as at Guildford, are making the most misleading and sensational statements in public handbills to procure the election of opponents of the Vaccination Acts, which probably have prevented more deaths than any other piece of legislation. We warn sensible people that small-pox will not always be in abeyance, and that those who go unvaccinated, or allow their children to do so, run risks which are out of all proportion to the trifling risks of vaccination. Let the people of Guildford choose sensible men to administer the laws passed by Parliament.

AFRICA AND THE LIQUOR TRAFFIC.

IT is very satisfactory to learn, as we do from a telegram in *The Times*, that at the meeting of the Liquor Committee of the Anti-Slavery Conference the English proposals for stopping altogether the sale of spirits in the interior of Africa and for levying an import duty in the coast regions were cordially supported by the French, Portuguese, Italian, and Turkish delegates. Unfortunately the Dutch and Germans hesitated to go so far. But let us hope they will yet fall in with proposals so worthy of great nations invading the territory of barbarous peoples, and without which we shall inflict a greater injury on them than slavery itself. Even from a commercial point of view the liquor traffic in Africa should be stopped.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Karl M. E. Hahn has been granted the title of Professor.

Berne.—Dr. Tschirch of Berlin has been appointed to the Professorship of Pharmacy and Pharmacology.

Messina.—Dr. Morrisani has been appointed Extraordinary Professor of Pathology.

Prague (*Bohemian University*).—Dr. Franz Maresch has been appointed Extraordinary Professor of Physiology.

St. Petersburg (*Medico-Chirurgical Academy*).—One of the several surgical chairs vacant, that of the late Professor Bogdanovski, has been filled up by the appointment of Dr. Ratimoff.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced :—

Dr. Adam Handlorsch, Assistant in the Institute of Forensic Medicine, Vienna, in consequence of a post-mortem wound.—Dr. Diatroptoff of St. Petersburg.

DR. JACQUES BERTILLON (chief of the Municipal Statistical Department of Paris) will read a paper on Epidemic Influenza in France at the next meeting of the Epidemiological Society, on April 23rd, at 8 P.M., at 11, Chandos-street. Dr. George Rice will follow with a paper on an Influenza Outbreak in a Poor-law School. An important discussion on the etiology of influenza is expected.

WE regret to announce the death, from pulmonary congestion, in his sixty-second year, of Dr. Trélat, a famous Parisian physician, and a distinguished member of the Academy of Medicine. He was the son of Ulysse Trélat, Minister of Public Works in 1848, and an eminent authority on lunacy. During the Franco-German War the deceased physician distinguished himself in the Ambulance Department, and upon its conclusion was appointed Professor to the Faculty of Medicine. He was Professor of Clinical Surgery in the Hôpital de la Charité, and was the author of a number of medical works.

THE influenza epidemic made itself severely felt in the German Army. According to the medical report for January, 1890, the mortality amounted to 164. Of these 132 deaths were caused by disease, 7 by accidents, and 25 by suicide. Pneumonia and pleurisy between them occasioned 64 deaths—the remainder being chiefly due to influenza.

SIR GUYER HUNTER has been appointed Chairman of the Committee of Inquiry into the Water-supply of the City and its Cost. The inquiry will be watched with interest by more than those who use the City water-supply.

IT is said to be the intention of the German Government to prohibit the use of the American title D.D.S. (Doctor of Dental Surgery) by dentists as misleading.

THE OPHTHALMIC ISOLATION SCHOOL AT HANWELL.

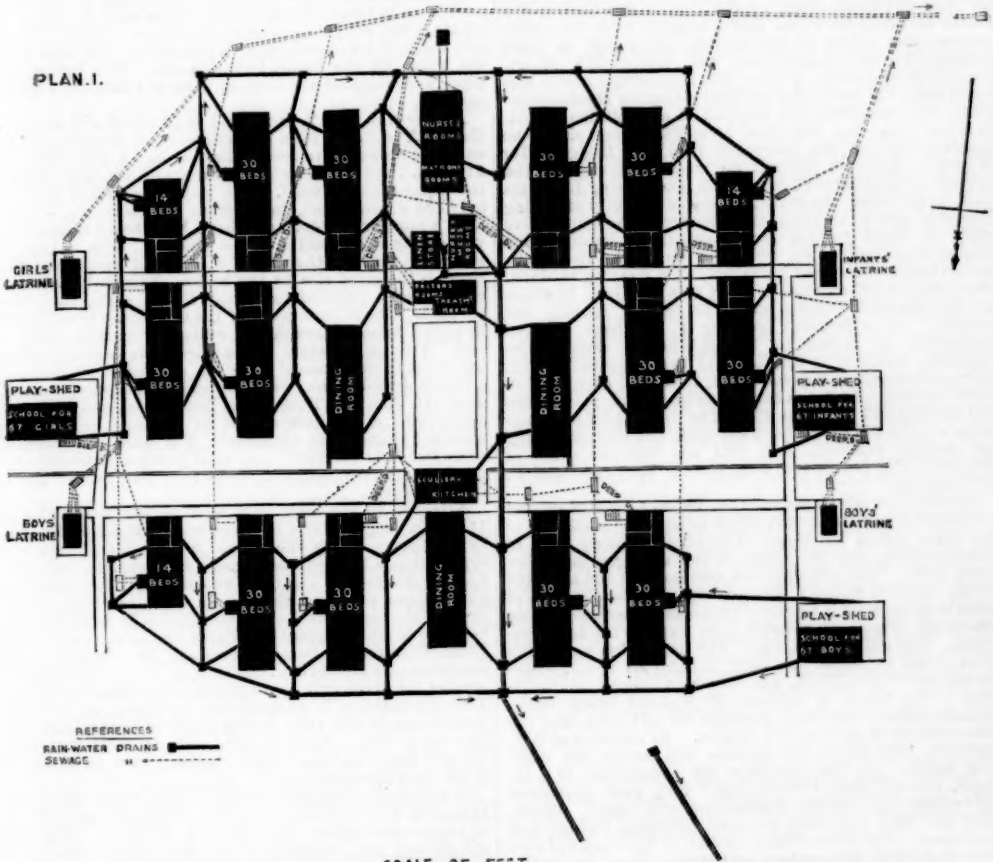
BY SYDNEY STEPHENSON, M.B., F.R.C.S.ED. (EXAM.),
MEDICAL OFFICER IN CHARGE OF THE OPHTHALMIC CASES.

SPEAKING practically, I am, I think, within the mark in saying that the Central London District School at Hanwell has never been free from ophthalmia. The disease, it is true, has varied in severity at different periods, but in one form or another it has always been the bane of this school. Over and over again has the advice of experts been asked (and one must, in candour, add disregarded) as to the best means of eradicating the scourge. In these circumstances, a *précis* of the ophthalmic history of the school may perhaps be of interest.

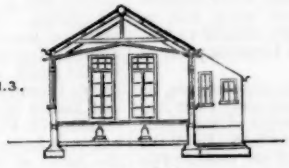
Mr. Bowman, in 1858, and Mr. Haynes Walton, in 1861, made reports. In the early part of 1862 purulent ophthalmia broke out in the school, and Mr. Bowman was again consulted. Six hundred and eighty-six cases were recorded; and the epidemic was considered to be of so serious a character that five doctors (in addition to the resident medical officer) were specially engaged to cope with it. During this eventful year Mr. Bowman made ten reports in all. In 1868 Mr. Critchett's advice was sought. He made a suggestion which has now, after the lapse of twenty-two years, become *un fait accompli*. For to Mr. Critchett is due the credit of proposing that the cases of ophthalmia should be placed in an isolation school, where, concurrently with schooling, appropriate medical treatment might be carried on. We may pass forward now to 1874, when, at the request of the Local Government Board, Mr. E. Nettleship made a systematic inspection of the eyes of all the inmates of the metropolitan pauper schools. Hanwell figured prominently on Mr. Nettleship's black list. In his report, he said: "The present system may be shortly described as an arrangement for favouring the production and spread of the disease, and then keeping it in check by unceasing, laborious, and expensive medical treatment." To reduce the bad eminence of the Hanwell School, Mr. Nettleship made many useful suggestions. Some were carried out, but more were passed over. In 1888, Dr. Littlejohn, resident medical officer to the school, published a report on ophthalmia. Dr. Littlejohn enters fully into the question, upon which he brings to bear the lengthened experience of the disease which his twenty years' connexion with the

PLANS OF OPHTHALMIC SCHOOLS, HANWELL.

PLAN. 1.

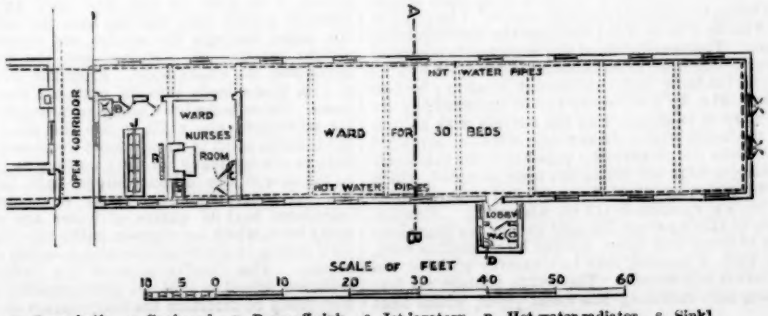


PLAN. 3.



SECTION A-B

PLAN. 2.



B, Spray bath. C, Cupboard. D, Draw-off sink. J, Jet lavatory. R, Hot water radiator. S, Sink]

school had afforded him. This report attracted the attention of the Press. It is not too much to say that the questions asked by Mr. Mundella in the House of Commons (in May and June, 1889), by the Earl of Strafford in the House of Lords (in June, 1889), together with the active interest now taken in the subject, are owing in great measure to this painstaking and trustworthy report. Another consequence was that Mr. Nettleship's advice was again sought in 1888. He repeated his former recommendations, and suggested the erection of an isolation school. It is only right that this brief historical account should be supplemented by the statement that Dr. Bridges, Her Majesty's Inspector (himself no mean authority on the subject of ophthalmia), has again and again, for years past, urged upon the managers the advisability of taking energetic action to quell the disorder. The cumulative effect of these various recommendations, issuing from sources so authoritative, could not but make itself felt. Accordingly, the school managers, at a meeting in June, 1889, determined at once to erect iron buildings, in which all the diseased children could be tended, taught, and treated. At a previous meeting I had been engaged exclusively to attend to the ophthalmic cases. The buildings, which it is the object of this paper to describe, were commenced on September 1st, 1889, and completed in three months. As far as can be estimated at present the cost per bed will be about £75. The contract for buildings alone was for £19,639; the total cost, however, including tar paving, draining, &c., will not fall far short of £30,000. The contractors were Messrs. Kirk and Randall, of Woolwich.

The isolation school has been erected on a piece of ground some eleven acres in extent, which adjoins the south side of the main school buildings. The land, formerly part of Hanwell-park, was purchased by the managers some few years since. The buildings are one-storeyed and arranged on the pavilion system; they are separated by distances of more than twice their heights. Tar paths connect the various wards and offices; no covered ways have so far been provided. The soil is a stiff clay. The ground has a good fall from north to south. A clear unoccupied space, which varies from 100 to 150 ft., has been kept around the buildings. The whole is enclosed by a stout oaken fence. Accommodation has been provided for 134 boys, and the same number of girls and of infants. As a matter of fact, however, only about 350 patients will occupy the isolation school. All the buildings are constructed of ¾-in. wood, covered with "inodourless" felt, and corrugated galvanised iron, No. 20, Birmingham wire gauge. Inside, they are lined with deal matched boarding, stained and varnished. The floors, which consist of two layers of one-inch deal, with felt sandwiched between them, are, in the case of the wards, stained and wax-polished. To provide against damp, and to prevent the admission of ground air into the buildings, a layer of blue lias cement, of a minimum depth of 6 in., has been spread under each ward, and, in addition, the floors are raised by brick piers from 2 to 3 ft. above the ground level (Plan 3). From a hygienic point of view, these provisions are admirable.

The wards, of which fifteen have been erected, are, as shown in Plan 1, arranged in such a manner that their longitudinal axes run north and south. Twelve of the wards will hold thirty, and three, fourteen patients each. In all the wards, 50 ft. superficial has been allowed per child. The larger wards (Plan 2) are 75 ft. long by 20 ft. wide; to the springing of the roof the height is 10 ft., and it is 15 ft. to its apex. The smaller wards are 35 ft. long, their height and breadth being the same as the large wards. A large linen closet (5 ft. 3 in. by 2 ft. by 8 ft.) occupies the end adjoining the duty room. The ventilation of the large wards is carried out by thirteen double hung external sash windows (3 ft. by 5 ft.) with a fanlight (20 in. by 3 ft.) above each window; by two casements (9 ft. 6 in. by 3 ft.) at the end of the ward; by six inlets (6 in. by 18 in.)—supplied on the outside with an iron grid and on the inside with a hit-and-miss slide—so arranged that, in most cases, the air entering passes over the hot-water pipes. Finally, a ridge ventilator has been provided, which runs along the entire length of the ward, and communicates with two Boyle's extractors (12 in. diameter). Mention may be made of Hill's patent fanlight opener, an ingenious combination of screw and lever, worked by an endless cord, arranged in such a manner that in whatever position the fanlight is left it will remain. The wards contain no fireplaces. Three-inch radiating hot-water pipes, which heat also the duty and washing rooms, run down the sides of each ward (Plan 2). The boilers for heating the water, together with horizontal circulating cylinders of 250 gallon capacity, are placed in basements at the end of the ward (Plan 1). In all there are ten boiler-houses, each on the average heating two wards or other buildings. These boilers also supply the hot water for the baths, lavatories, &c. The boilers and pipes were supplied and fixed by Messrs. Clements, Jeakes, and Co.

As shown in Plan 2, each ward is provided with a water-closet. The closets form projections which run out at right angles to about the centre of the wards. A lobby (3 ft. by 5 ft. 8 in.), ventilated by two external sash windows, isolates the closet from the ward. The watercloset itself contains only one window, but, in order to facilitate cross ventilation, a number of ¾-in. holes have been bored through the wall on the side opposite to the window. It is a pity, by the way, that another window was not provided. The closet is the same size as the lobby. Tylor's "clearway" closets, with polished mahogany lift-up seats, have been adopted. The highest point of the closet-trap is ventilated by a pipe passing through the walls and carried above the roof. Two-gallon water waste preventors are fixed above the closet to the external wall. In one corner of the room a leaded draw-off sink, with hot and cold supply, has been fixed (D, Plan 2). The floors of both closet and lobby are constructed of concrete floated in Portland cement; the walls are stained and varnished. The ward is lighted by three two-light pendants. In order to show dirt easily, the gaspipes, iron ties, and King bolts have been painted a light salmon colour.

Attached to the ward is a ward nurse's room (Plan 2), 14 ft. 6 in. long by 9 ft. 6 in. wide, with a window (2 ft. 6 in. by 4 ft.) commanding the ward. A sink, fitted with lead syphon trap, a large cupboard, and a 3 ft. fireplace, have been fixed in this room. The room was originally designed to be a duty room pure and simple. In order, however, to save expense the managers decided that it should serve also as a bedroom for the assistant nurse attached to the ward. The Local Government Board sanctioned the decision. The disadvantages are obvious. A sink in a bedroom scarcely reaches the nineteenth century ideal of sanitary perfection. That the building is intended for temporary and not permanent use is the only saving clause in the arrangement. The ward lobby, which is 5 ft. wide by 20 ft. 6 in. long, has two sash windows with fanlights. Boot racks will be fitted up in this lobby.

In connexion with every ward is a lavatory and bath-room, 14 ft. 6 in. long by 10 ft. 6 in. wide, which, for convenience of ingress and egress, has two doors (Plan 2). The walls are stained and varnished. The floor, which has a fall towards the centre of the room, consists of Portland cement. Three sash windows, the lower panes being ground glass, with fanlights, ventilate and light the room. Washing is carried out at a lavatory (9 ft. 6 in. long) arranged on the jet system. (See J, Plan 2.) Hot and cold water are obtained through nipples 22 in. apart and 4 ft. from the ground. Ten such nipples are provided for the large, and six for the small, wards. The water falls over slate slabs, and passes through glazed stoneware channels into the open air, and thence into the sewage drains. In the corner of the lavatory (B, Plan 2) a spray bath, with hot and cold supply, has been fixed. These admirable contrivances, with which the name of Sir E. Chadwick is honourably associated, consist of an iron service pipe having seven perforated nozzles enclosed in a slate case with glass door. The bath is 2 ft. 2 in. wide by 2 ft. 2 in. deep by 5 ft. 6 in. high. Directly a child steps into the bath the valves, which admit the water through the nozzles, are opened by the child's weight pressing on a spring, and the jets diffuse a fine spray over the whole body. From the bottom of the bath a 2-in. waste leads into an open air channel outside the room. These baths have many advantages. It is impossible for more than one child to use the same water—from an ophthalmic point of view a most important provision. The bath is always ready for use; no time is lost, therefore, as in the case of the ordinary slipper bath, in waiting for it to fill. A great saving of water is secured: it has been calculated that 15 quarts of water are sufficient for the spray bath, while for common baths 180 quarts are required. This saving of water implies also a saving of fuel, time, and labour. The disadvantage of the baths erected in the isolation school is that no arrangements have been made accurately to ascertain the temperature of the water before

the child enters the bath. The washing room is heated by a radiator (4 ft. by 2 ft. 6 in.), placed over the inlet for fresh air at the floor level.

The kitchen contains, in addition to a large gas cooking range, steamers and boilers of various descriptions. The cooking apparatus cost £490. Messrs. J. F. Clarke and Son, of Moorgate-street, supplied the fittings and the vertical steam boiler used for cooking purposes.

Three dining halls, each 80 ft. long by 20 ft. wide, are grouped around the kitchen (Plan 1). In addition to fourteen external double hung sash windows and two casements, each dining room has two louvred lantern lights. The windows, a ridge ventilator, two extractors, and four inlets for fresh air make efficient provision for ventilation. The heating is effected by hot-water pipes. It is proposed, for dining purposes, that the children shall be seated at small tables, and not, as is more usual, at long benches crowded together.

The three school rooms (Plan 1) are each 30 ft. long by 20 ft. wide, with a height similar to the wards. Their longitudinal axes run east and west. As "the half-time system" of instruction is adopted, only one-half of the children will be in school together; hence the comparative smallness of the rooms. A minimum allowance of 12 ft. super. per child has been allotted. The window is to the floor superficies as 1 is to 3·06. The lower boundary of the windows is 36 in. from the floor. Ventilation and warming are carried out as in the wards. On the southern and western sides of the school rooms are L-shaped lean-to playsheds, open at the front and sides.

The administrative block (Plan 1) includes a bedroom and parlour, with a kitchen, bath room, and watercloset for the matron. Close to the matron's quarters, ranged on either side of a central corridor, are eight bedrooms for charge nurses. Each cubicle is 10 ft. by 8 ft., and has its own window and fresh-air inlet. No fireplace has been provided in these rooms—the heating is done by hot-water pipes. At the end of the corridor, two bath rooms, which contain spray baths, have been fitted up. An outdoor latrine, screened from view, and provided with two seats, has been erected south of the nurses' quarters. A linen store (20 ft. by 15 ft.) fitted with deal rack shelving, arranged so as not to interfere with the windows, and warmed by hot-water pipes, adjoins the north side of the matron's rooms. A nurses' mess and common room (15 ft. by 20 ft.), with scullery (9 ft. by 8 ft. 6 in.) and food store (6 ft. by 9 ft.) are in proximity to the linen store. In a central position (Plan 1), easily accessible by the nurses and children, is the treatment room (26 ft. by 20 ft.). The treatment of the eyes is carried out in this room daily; and, as the whole of the patients pass through it, seven doors have been provided. Two washbasins and a top light have been put up. A large fireplace and a radiator supply heat. A small private office, with watercloset and lavatory attached to it, leads from the treatment room.

In the playgrounds, glazed stoneware trough closets, with thirty-gallon automatic flushing tanks, have been erected. The latrines have louvred tops and are enclosed by an open screen. One side of the boys' and infants' latrine has been made into a urinal, which is provided with a copper sparge to admit water constantly. Out-door closet accommodation is provided for 10 per cent. of the boys, 15 per cent. of the girls, and 15 per cent. of the infants.

To meet the requirements of the Hanwell Local Board, the separate system of drainage has been adopted. As the blue lines on Plan 1 show, the surface-water drains (4-in. pipes) have a fall from north to south; the collected rain-water is then conducted (by a 6-in. pipe) to an inspection chamber which lies north of the isolation school. It then passes through the rain-water drains of the school proper, and ultimately into the River Brent. The sewage, on the other hand, passes through 4-in., 6-in., and, finally, through a 9-in. pipe to the parish sewer in Cuckoo-lane on the west side of the buildings (red lines on Plan 1). The minimum fall is, for the rain-water 1 in , and for the sewage 1½ in. in 10 ft. The stoneware sanitary pipes, of which both systems are constructed, are bedded on cement concrete, nowhere less than 6 in. in depth. As shown in Plan 1, at the intersection of drains, and at other points, inspection chambers have been provided. These are 4 ft. 6 in. by 2 ft. 6 in., and have at the bottom glazed open channels. At the top, iron flaps with ventilating gratings have been fixed. Altogether there are 49 sewage and 67 surface-water manholes. At the head of the main lines of drains, on the highest part of the sewage system, five automatic flushing tanks, which contain 225 gallons a piece, have been placed. The soil-pipes of the ward watercloset are carried above the roof, and have open tops. The wastes from the baths, sinks, and lavatories, which discharge outside the buildings into open stoneware channels covered with iron gratings, run into the sewage drains.

From a well bored through the clay into the chalk (which also supplies the school proper), the water is pumped into a reservoir 40 ft. above the ground level. From this source the isolation school derives its water-supply. The gas is supplied by the Brentford Company.

To subdivide the children into small groups, to give each ward its own playground, and, above all, to render the site as dry as possible, all the spaces between the wards and other buildings are tar paved. The contract price for this paving was £2799 11s. 10*d*. The belt of land which intervenes between the isolation school and its boundary fence is agriculturally drained by 2-in. and 4-in. pipes laid 12 ft. apart. As the soil is a heavy clay, apt to hold up much moisture, this provision is of importance. Further, when grass has grown, the patients will have a meadow fit to play in. On the western side of the buildings coal and coke stores, a dustbin to hold two cartloads of dust, and a meter-house for a 300-light meter have been erected. After disinfection in Washington Lyon's steam disinfector, clothes from the isolation school will be washed in the general school laundry. Further, food, stores, &c., will be supplied from the school. Besides male and female servants, a matron, seven charge nurses, and fifteen assistant nurses will carry on the administration of the ophthalmic school. Messrs. H. Jarvis and Son, of Trinity-square, S.E., to whom I am indebted for many details, were the architects.

In conclusion, tribute must be paid to the public-spirited policy of the present Board of Management, who, by erecting this isolation school, have taken the most effectual means of dealing with that almost historic scourge of pauper schools, ophthalmia. But the tale is not complete. The managers intend, further, to erect a new infants' school, to reconstruct the old system of drainage, and, perhaps the most important advance of all, to divide the school buildings (which are on the corridor system) into sections. In the past makeshifts—as unsatisfactory as only makeshifts can be—were trusted to. In the old and cumbersome school imperfect isolation was all that could be hoped for. The nursing of the ophthalmic cases was unskilled. Now that a more radical measure has been provided, one may look forward with equanimity to the time when ophthalmia (and its costs) will not be a necessary item in the school curriculum, and when "ophthalmia at Hanwell" will not form a standing and attractive headline for the evening papers.

DEMONSTRATION OF HYPNOTISM AS AN ANÆSTHETIC DURING THE PERFORMANCE OF DENTAL AND SURGICAL OPERATIONS.

A CORRESPONDENT, on whom we can rely, kindly furnishes us with the following remarkable report:—

A number of the leading medical men and dentists of Leeds and district were brought together on March 28th through the kind invitation issued by Messrs. Carter Brothers and Turner, dental surgeons, of Park-square, Leeds, to witness a series of surgical and dental operations performed in their rooms under the hypnotic influence induced by Dr. Milne Bramwell, of Goole, Yorkshire. Great interest was evinced in the meeting, as it is well known that Dr. Bramwell is quite a master of the art of hypnotism as applied to medicine and surgery, and is shortly to publish a work of considerable importance on the subject. Upwards of sixty medical men and dental surgeons accepted the invitation. Amongst the gentlemen present were the following:—Mr. Thos. Scattergood, Prof. Wardrop Griffith, Mr. Pridgin Teale, Professor Eddison, Dr. Jacob, Dr. Churton, Mr. Mayo Robson, Mr. H. Bendelack Hewetson, Mr. Henderson Nicol, Mr. Moyniham, Mr. Littlewood, Mr. Henry Gott, Mr. Churton, Mr. Edmund Robinson, Mr. William Hall, Dr. Braithwaite, Mr. Best, Mr. Wood, Dr. Light, Dr. Trevellyan, Dr. Caddy, Professor McGill, Dr. Turner (Menston Asylum), Dr. Hartley, Dr. Hellier, Mr. W. H. Brown. Dr. Bruce (Goole), Mr. Dennison, Mr. Edward Ward, Mr. H. Robson, Mr. King, Mr. Glaisby,

Mr. Sherburn, and Mr. Wayles. A letter expressing regret at his inability to be present was read from Dr. Clifford Allbutt, in which he reminded the meeting that he remembered the time—thirty-five years ago—when Lister performed several serious operations, using hypnotism as the anæsthetic, at the hands of a scientific lay friend in Lincolnshire. Mr. Jessop was also prevented at the last moment from being present. The object of the meeting was to show the power of hypnotism to produce absolute anæsthesia in very painful and severe operations.

The first case brought into the room was a woman of twenty-five. She was hypnotised at a word by Dr. Bramwell, and told she was to submit to three teeth being extracted without pain at the hands of Mr. T. Carter, and further that she was to do anything that Mr. Carter asked her to do (such as to open her mouth and spit out, and the like) as he required her. This was perfectly successful. There was no expression of pain in the face, no cry, and when told to awake she said she had not the least pain in the gums, nor had she felt the operation. Dr. Bramwell then hypnotised her, and ordered her to leave the room and go upstairs to the waiting room. This she did as a complete somnambulist.

The next case was that of a servant girl, aged nineteen, on whom, under the hypnotic influence induced by Dr. Bramwell, a large lacrymal abscess extending into the cheek had a fortnight previously been opened and scraped freely, without knowledge or pain. Furthermore, the dressing had been daily performed and the cavity freely syringed out under hypnotic anæsthesia, the "Healing

Taken during hypnotic sleep, about fourteen days after the removal of the tumour, and the day after the removal of sixteen teeth.

Suggestions" being daily given to the patient, to which Dr. Bramwell in a great measure attributes the very rapid healing, which took place in ten days—a remarkably short space of time in a girl affected by inherited syphilis, and in a by no means good state of health. She was put to sleep by the following letter from Dr. Bramwell addressed to Mr. Turner, the operating dentist in the case.

[COPY.]

"Burlington-crescent, Goole, Yorks.

"Dear Mr. Turner,—I send you a patient with enclosed order. When you give it her, she will fall asleep at once and obey your commands.

"(Signed) "J. MILNE BRAMWELL."

[COPY.]

"Go to sleep by order of Dr. Bramwell, and obey Mr. Turner's commands. "J. MILNE BRAMWELL."

This experiment answered perfectly. Sleep was induced at once by reading the note, and was so profound that at the end of a lengthy operation, in which sixteen stumps were removed, she awoke smiling, and insisted that she had felt no pain; and, what was remarkable, there was no pain in her mouth. She was found after some time, when unobserved, reading the *Graphic* in the waiting-room as if nothing had happened. During the whole time she did everything which Mr. Turner suggested, but it was observed that there was a diminished flow of saliva, and that the corneal reflexes were absent; the breathing was more noisy than ordinary, and the pulse slower. Dr. Bramwell took occasion to explain that the next case, a boy of eight, was a severe test, and would not probably succeed; partly because the patient was so young, and chiefly because he had not attempted to produce hypnotic anæsthesia earlier than two days before. He also explained that patients require training in this form of anæsthesia, the time of training or preparation varying with each individual. However, he was so far hypnotised that he allowed Mr. Mayo Robson to operate on the great toe, removing a bony growth and part of the first phalanx with no more than a few cries towards the close of the operation, and with the result that when questioned afterwards he appeared to know very little of what had been done. It was necessary in his case for Dr. Bramwell to repeat the hypnotic suggestions. Dr. Bramwell remarked that he wished to show a case that was less likely to be perfectly successful than the others, so as to enable those present to see the difficult as well as the apparently easy, straightforward cases.

The next case was a girl of fifteen, highly sensitive, requiring the removal of enlarged tonsils. At the request of Dr. Bramwell, Mr. Bendelack Hewetson was enabled, whilst the patient was in the hypnotic state, to extract each tonsil with ease, the girl, by suggestion of the hypnotiser, obeying every request of the operator, though in a state of perfect anæsthesia. In the same way Mr. Hewetson removed a cyst of the size of a horse-bean from the side of the nose of a young woman who was perfectly anæsthetic, breathing deeply, and who, on coming round by order, protested "that the operation had not been commenced."

Mr. Turner then extracted two large molar teeth from a man with equal success, after which Dr. Bramwell explained how his patient had been completely cured of drunkenness by hypnotic suggestion. To prove this to those present, and to show the interesting psychological results, the man was hypnotised, and in that state he was shown a glass of water, which he was told by Dr. Bramwell was "bad beer." He was then told to awake, and the glass of water (so-called bad beer) was offered him by Dr. Bramwell. He put it to his lips, and at once spat out the "offensive liquid." Other interesting phenomena were illustrated and explained by means of this patient, who was a hale, strong working man.

Mr. Tom Carter next extracted a very difficult impacted stump from a railway navvy as successfully as the previous case. Dr. Bramwell described how this man had been completely cured of very obstinate facial neuralgia by hypnotism. The malady had been produced by working in a wet cutting, and had previously defied all medical treatment. On the third day of hypnotism the neuralgia had entirely disappeared (weeks ago), and had not returned. The man had obtained, also, refreshing hypnotic sleep at night, being put to sleep by his daughter through a note from Dr. Bramwell, and on one occasion by a telegram, both methods succeeding perfectly.

At the conclusion of this most interesting and successful series of hypnotic experiments a vote of thanks to Dr. Bramwell for his kindness in giving the demonstration was proposed by Mr. Scattergood, Dean of the Yorkshire College, and seconded by Mr. Pridgin Teale, F.R.S., who remarked "that the experiments were deeply interesting, and had been marvellously successful," and said, "I feel sure that the time has now come when we shall have to recognise hypnotism as a necessary part of our study." The vote was carried by loud acclamations.

Messrs. Carter Brothers and Turner were cordially thanked for the great scientific treat which they had so kindly prepared for the many to whom hypnotism had been first introduced that day, and for the further opportunity afforded to the few who had seen Dr. Bramwell's work previously of studying its application as an anæsthetic. Mr. Henry Carter replied for the firm, and the meeting closed, the patients looking as little like patients as persons well could, giving neither by their manners or expression the slightest suggestion (except when external dressings were visible) that they had suffered or were suffering from, in some instances, extensive surgical interference.

THE GULSTONIAN TRUST AND ITS FOUNDER: A HISTORICAL NOTE.

THE following account of the founder of the Gulstonian Lectureship at the Royal College of Physicians has been forwarded to us from a reliable source. It contains some particulars of his biography in addition to those to be found in Dr. Munk's Roll of the College of Physicians, where, it may be remarked, the name is spelt *Goulston*.

Among the archives at the Heralds' College there is, it appears, safely stored away the funeral certificate of Dr. Theodore Gulston, M.D., dated 1632, and which sets forth that he was the third son of William Gulston, D.D., rector of Wymondham in Leicestershire; that he married Ellen, daughter of George Southerton (Governor of the Merchant Adventurers' and Master of the Merchant Taylors' Company), by whom he had no issue, she dying in 1637. In Wood's "Athena Oxoniensis"[1] he is thus quaintly described:—"Theodore Gulston received his first breath in the county of Northampton, became probationer Fellow of Merton College in 1596. 'Applyed his muse' to the study of medicine (after he had been adorned with the magisterial degree), in the practice of which, having been initiated in these parts, he lived afterwards at Wymondham, where, as also in the neighbourhood, he became famous and much frequented for his faculty. At length, taking the degrees of Physic in this (Oxford) University in 1610, was made a candidate of the College of Physicians at London, and the year after Fellow thereof, and afterwards Censor, being at that time in great esteem of his practice in the metropolitan city. He was an excellent Latinist and a noted Grecian, but better for theology, as it was observed by those that knew him. He hath published 'Versio Latina' and 'Paraphrasis in Aristotelis Rhetoricum,' London, 1619 and 1623; also 'Aristotelis de Poeticâ,' 'Liber Latinæ Conversus,' and 'Analytica Methodo,' Illustratus London, 1623; also 'Versio variæ Lectiones' and 'Annotationes Critica in Opusculæ variæ Galeni,' London, 1640, which last was published by his good friend, Thomas Gataker, Bac. of Div. Doctor Gulston 'dyed' at his house within the parish of St. Martyn's by Ludgate, within the city of London, 4th May, 1632, and was buried with great solemnity in the church belonging to that parish."

"By his will Dr. Theodore Gulston bequeathed £200 to purchase a rent-charge for the maintenance of an 'Anatomy Lecture' in the College of Physicians at London, besides other donations, which were mostly, if not all, performed by his virtuous and religious widow Ellen Gulston. She, being possessed of the impropriate parsonage of Bardwell, in Suffolk, did procure leave from the King (Charles I) to annex the same to the vicarage, and to make it a presentative, which, being so done, she gave both so annexed (for she had the donation of the vicarage before that time) freely to St. John's College, Oxon."

Dr. Theodore Gulston was third great-nephew to Thomas Goldstone Gulston, Prior of Canterbury (the second Prior of that name[2]), and was uncle to William Gulston, D.D., Bishop of Bristol, who died 1681; and Dr. Lancelot Addison's wife was his niece, Jane Gulston, mother to the famous poet and writer, Joseph Addison.

The present senior representative of Dr. Theodore Gulston (the founder of the well-known lectures) is Alan Stepney-Gulston of Derwydd, Esquire, in the county of Carmarthen (lineally descended from the doctor's elder brother John), through whose courtesy we have obtained the foregoing particulars.

[1] Vol. i., pp. 567-9, &c.

[2] In Somers's "History of Canterbury" we learn that Thomas Goldstone Gulston, born in 1442, became prior of Canterbury Cathedral, and was known as Prior Thomas Goldstone, "the second of that name." He was prior during twenty-four years, eight months, and sixteen days. He died in 1517, and was buried in the cathedral (see his tomb there); and he was the senior ecclesiastic sent in charge of the embassy appointed by Henry VII. (see "Letters and State Papers of the Reigns of Richard III. and Henry VII.," vol. ii. &c., by Jas. Gairdner) to arrange the terms of the peace which was concluded with the French king, Charles VIII., A.D. 1492, and amongst the Commissioners who accompanied him was Sir Rice ap Thomas, K.G., who also was a direct ancestor of the Stepney-Gulstons of Derwydd, of the Stepneys of Llanelly, of the Dynevors of Dynevor, and of many other Carmarthenshire families. Some interesting and personal relics of the renowned Sir Rice ap Thomas are still preserved at Derwydd.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Uxbridge Rural District.—Estimating the population up to the end of the first half of the year 1889, Mr. C. Roberts calculates the general death-rate at 16·8 per 1000. The zymotic rate was high—namely, 3·4 per 1000—and, as will be remembered, diphtheria, which last year caused 20 deaths, materially contributed to this end. The epidemic of diphtheria is mainly discussed in connexion with the parishes of Hillingdon and Cowley, and apart from the question of infection contracted at school, it is evident that the prevalence of the disease was at least associated with, if not due to, a number of serious sanitary conditions. Attention seems, at the time in question, to have been a good deal drawn to offensive circumstances about houses. A regular house-to-house visitation and record will now, it is to be hoped, secure both the knowledge and the remedy before the advent of infectious disease. In Ickenham there were 4 diphtheria deaths. The joint hospital received 151 patients, of whom 56 from the urban district and 27 from the rural district were suffering from diphtheria. Recommendations and action in such matters as unhealthy dwellings, water-supply, &c., are evidently being pressed; and the need for drainage works and the prevention of pollution in regard to streams are put forward as urgent. Obviously this authority has arrears of work to make good.

Exeter Urban District.—According to a report on the city sanatorium, it would appear that 41 patients were under treatment during 1889, 8 of these coming from without the city. In all, 559 patients have been received since 1882, the death-rate over the eight years amounting to 6·2 per cent. of the admissions. To prevent needless personal communication with the establishment, the telephone has been brought into use.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5852 births and 3982 deaths were registered during the week ending March 29th. The annual rate of mortality in these towns, which had declined from 26·6 to 21·7 per 1000 in the preceding three weeks, further fell last week to 21·4; the rate was 18·5 in London and 23·8 in the twenty-seven provincial towns. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the twenty-eight towns averaged 24·7 per 1000, and exceeded by 1·7 the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 17·9 in Nottingham, 18·5 in London, 19·1 in Bristol, and 19·4 in Bolton and in Birkenhead. The rates in the other towns ranged upwards to 28·7 in Brighton, 28·8 in Newcastle-upon-Tyne, 29·3 in Sheffield, and 31·9 in Manchester. The deaths referred to the principal zymotic diseases, which had declined from 379 to 363 in the preceding four weeks, rose again last week to 424; they included 164 from whooping-cough, 97 from measles, 64 from scarlet fever, 46 from diphtheria, 33 from diarrhœa, 20 from "fever" (principally enteric), and not one from small-pox. The lowest death-rates from these diseases were recorded in Huddersfield, Leicester, Portsmouth, and Birkenhead; while they caused the highest rates in Birmingham, Preston, Brighton, and Salford. The greatest mortality from measles occurred in Liverpool, Birmingham, and Derby; from scarlet fever in Salford, Sheffield, and Preston; and from whooping-cough in Wolverhampton, Liverpool, Oldham, Bolton, Salford, and Brighton. No marked excess of "fever" mortality was recorded in any of these great towns. The 46 deaths from diphtheria in the twenty-eight towns included 30 in London, 4 in Salford, 4 in Hull, 2 in Manchester, and 2 in Sheffield. No death from small-pox was registered in any of the twenty-eight towns. Seven cases of this disease were

under treatment in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital further declined last week to 1083; 91 cases were admitted to these hospitals during the week, against 76 and 87 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 510 to 381 in the preceding three weeks, further fell to 375 last week, and were 106 below the corrected average. The causes of 84, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Bristol, Newcastle-upon-Tyne, and in five smaller towns; while the largest proportions of uncertified deaths were recorded in Liverpool, Birmingham, Sheffield, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 28·7 to 24·8 per 1000 in the preceding six weeks, further fell to 24·2 in the week ending March 29th, but exceeded by 2·8 that which prevailed during the same week in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 17·2 in Perth and 18·0 in Paisley to 25·8 in Leith and 28·0 in Glasgow. The 627 deaths in the eight towns showed a decline of 14 from the number in the previous week, and included 31 which were referred to measles, 26 to whooping-cough, 11 to diarrhœa, 6 to scarlet fever, 5 to diphtheria, 4 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox. In all, 83 deaths resulted from these principal zymotic diseases, against 103 and 101 in the preceding two weeks. These deaths were equal to an annual rate of 3·2 per 1000, which exceeded by 0·9 the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases last week were 4·1 in Glasgow and 4·2 in Aberdeen. The fatal cases of measles, which had been 28 and 34 in the preceding two weeks, declined to 31 last week, and included 16 in Glasgow and 10 in Edinburgh. The 26 deaths from whooping-cough showed a further decline from those recorded in the previous three weeks; 15 occurred in Glasgow, 5 in Edinburgh, and 4 in Aberdeen. The 6 fatal cases of scarlet fever exceeded by 3 the number in the preceding week, and included 2 in Glasgow. The deaths from diphtheria, which had been 10 and 12 in the previous two weeks, declined to 5 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in the eight towns, which had declined from 203 to 129 in the preceding five weeks, rose again to 141 last week, and slightly exceeded the number returned in the corresponding period of last year. The causes of 48, or nearly 8 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 28·2 to 30·9 per 1000 in the preceding three weeks, declined again to 25·9 in the week ending March 29th. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 37·0 per 1000, the mean rate for the same period being 23·6 in London and 25·9 in Edinburgh. The 175 deaths in Dublin last week showed a decline of 34 from the number in the preceding week; they included 5 which were referred to whooping-cough, 3 to measles, 1 to diphtheria, 1 to "fever," 1 to diarrhœa, and not one either to small-pox or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 18 and 14 in the preceding two weeks, further declined last week to 11; they were equal to an annual rate of 1·6 per 1000, the rate from the same diseases being 2·4 in London and 3·8 in Edinburgh. The fatal cases of whooping-cough, which had been 7 and 4 in the previous two weeks, were 5 last week. The 3 deaths referred to measles showed a decline of 3 from the number in the preceding week, and the mortality from "fever" showed a further decline from that recorded in recent weeks. Two inquest cases, and 4 deaths from violence, were registered; and 41, or nearly one fourth, of the deaths occurred in public institutions. The causes of 32, or more than 18 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

RELATIVE SAFETY OF ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 8th and 15th, 1890, there are important letters on the relative safety of anæsthetics. Mr. Roger Williams gives certain statistics of the administration of anæsthetics and of the fatalities which have occurred at St. Bartholomew's Hospital, which, he says, may be accepted as reliable averages at the other London hospitals. From these it appears that deaths from chloroform in the London hospitals amount to about 1 in 1236, and from ether to 1 in 4860 administrations. The late Mr. Syme's cases and my own form a continuous series of daily administrations[1] of chloroform in Europe and in India, from 1847 to 1890, without any deaths, and if Mr. Roger Williams's reasoning from statistics is correct, it is logical to infer that the administration neither of chloroform nor of ether, as conducted in London, is as safe as the administration of chloroform on the principles advocated by Mr. Syme.

There can be no doubt that there is a flaw somewhere in the London teaching with reference to anæsthetics, and evidence on this point is supplied by the letter of Mr. Woodhouse Braine, who maintains that it is far more important to watch for pallor of the face than for partial interference with the breathing in chloroform administration, having previously stated that pallor of the face is one of the signs that the patient is dead. Mr. Braine writes as if the acceptance of the truth about chloroform would be disastrous to anæsthesia specialists. The reverse of this would be the case, as it is well known that immense numbers of people are deterred from having operations performed on account of the dread of anæsthesia caused by the present position of anæsthetics.

It is for anæsthetists themselves, however, or for the surgeons who employ them, to decide which policy is likely to be more conducive to their own interests; to persevere in announcing publicly that anæsthetics cannot be given safely in London, or to give a fair trial to Syme's principles, which have stood the test of experience, and have been proved by the Hyderabad Commission to rest on a secure physiological foundation. The question of chloroform administration is no longer one of doubt or of opinion, and moreover it is one of common sense. If Hyderabad students can be taught to give chloroform as they do day after day, with guaranteed safety, *a fortiori* it must be a much more easy task to teach London students to do the same.

I am, Sirs, your obedient servant,

EDWARD LAWRIE,
Surgeon-Major.

Hyderabad, Deccan, March 12th, 1890.

THE CHLOROFORM COMMISSION.

To the Editors of THE LANCET.

SIRS,—The point raised by Surgeon-Major Deane in his letter published in THE LANCET of Jan. 25th is no doubt very important to the medical practitioner both in the United Kingdom and in other parts of Her Majesty's dominions. After the promulgation of the Hyderabad Chloroform Commission Report, the administrator of chloroform in a case which may unfortunately be fatal will be in a very awkward position before the coroner's court. We hear very often of "death from chloroform" in large hospitals in the United Kingdom. Considering that greatest care is always taken to entrust the duty to trained and experienced men, it is impossible to believe that no other factor but want of sufficient care plays part in such casualties. While fully appreciating the great and good work done by the Commission, I believe I am justified in saying that there is hardly one new recommendation contained in the practical conclusions given in the end of the Report which is not already known to the profession, and which careful surgeons do not observe in their every-day work in the operation room.

Dr. Deane says:—"For the last fourteen years I have administered chloroform precisely as the Commission

[1] By daily administrations must be understood several administrations every day.—ED. L.

recommends." I can fully bear testimony to this statement, as I had on several occasions administered chloroform when Dr. Deane was operating. I have administered chloroform in a very large number of cases. I have always held the theory that chloroform stops the respiration before it interferes with the circulation. During the administration of chloroform I never feel the pulse, but keep a careful eye on the respiration and condition of lips, &c.; but, during the last four years, I had on two occasions to abandon the contemplated operation, and on three others to postpone it, for the danger that stared me in the face after the administration of only a few whiffs of chloroform. By the time this letter will reach you, English surgeons will no doubt have given their opinions on the question. The Hyderabad Commission deserve the highest credit, and it is not too much to say that it is one of the greatest scientific events of the nineteenth century; but, at the same time, it must be observed that the last paragraph of its report has hardly the chance of being universally admitted, and is calculated to be positively dangerous medico-legally, as Dr. Deane has pointed out.

I am, Sirs, yours faithfully,

Kashmir, March 5th, 1890. A. MITRA, L.R.C.P., L.R.C.S.

ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET.

SIRS,—Allow me to direct the attention of your readers to the advertisement of the biennial festival of the Royal Medical Benevolent College on April 17th, to which you have so kindly given a prominent position. Sir James Paget has consented to take the chair in the hope of aiding the fund for the support of the pensioners and foundationers of the College. The Council have each year to find not less than £4000 to support fifty pensioners, and to clothe, feed, and educate fifty foundation scholars. Towards this amount they have but a certain income of £600 a year. Can there be any cause more directly appealing to the medical profession, and through them to the public, than the soothing the declining years of the necessitous aged and giving a sound and thorough education to the young? We ask for no money help for the school generally, apart from the foundation. It is doing good work, which is steadily bearing fruit. The numbers are rising, but at present there is accommodation for more pupils. It is with no little pride that we can point at this moment to as many as six Epsomians upon the teaching staff of our great metropolitan hospitals. This will sufficiently stamp the excellence of our scientific teaching. We offer immense benefits to the sons of medical men, but we do away with the evils of a class school by the admixture of the sons of laymen—sons of parents outside the medical profession. Each boy is under the special care of a house-master, who is in close relation to him at all times; and he receives an education which will fit him in due course to go direct from the school to Oxford or Cambridge, to the London hospitals, or to enter the army or go into a merchant's office. It is the desire of the Council to extend the usefulness of the school, and to increase the benefits it confers, by attracting a larger number of pupils. They now appeal with confidence to the members of the medical profession for funds to carry on the benevolent side of their great work.

I am, Sirs, yours faithfully,

C. HOLMAN,

Reigate, March 31st. Treasurer of Epsom College.

URIC-ACID EXCRETION: BIRDS *v.* BEARS.

To the Editors of THE LANCET.

SIRS,—Although it fortunately happens that in the majority of instances the reader is able from the context to discover for himself the nature of a typographical error, every now and again the substitution of one word for another not only renders the author's meaning obscure, but makes the purport of his remark so unintelligible that it demands correction. Unluckily for me this has been the case in the report in THE LANCET of to-day (March 29th) of the discussion following upon the reading of Sir Wm. Roberts' paper on the History of Uric Acid at the Royal Medico-Chirurgical Society. The substitution of the two letters "e" and "a" for "i" and "d" having sufficed to transform a bird into a bear, and thereby not only completely nip off the point of my argument, but by bringing into juxtaposition similar instead of dissimilarly feeding animals render the cogency of the illustration totally indiscernible. I crave therefore that you will give me sufficient space, not only to direct attention to the misprint, but at the same time give a brief explanation of the important significance of the substitution of the one animal for the other in a discussion on the respective influences of diet and constitutional peculiarities in the production of uric acid in the human system. For strange to say, insignificant though the daily production of uric acid is, this substance is nevertheless the parent of more constitutional as well as local discomforts than that of all the other effete urinary excrementitious products put together. As not only is it the main source of all the sand, gravel, and calculi that afflict us, and plays an important part in gout and diabetes, but it is at the same time one of the chief products of liver derangements and febrile disturbances. Consequently, the more fully the medical practitioner understands its physiology the better will he be able to successfully cope with its pathological eccentricities.

In order, then, that there may be no ambiguity as regards the purport of my observations, I may remark that I endeavoured to show that it was a fallacy to suppose that diet had a greater influence on the amount of uric acid formed in and excreted by the human body than constitutional peculiarity. For, although it is incontestable that herbivorous animals pass hippuric acid in their urine, while carnivorous and omnivorous animals excrete uric acid, it is likewise thought that a healthy man passes a third more uric acid on an animal diet than on a vegetable one, and double as much on a mixed diet, as when living on a non-nitrogenous one. The following facts materially militate against the unconditional acceptance of the theory that diet is the ruling factor in uric-acid formation. For, firstly, while within the first month after its birth the human infant excretes a proportionally larger amount of hippuric than of uric acid, the sucking calf's urine contains no hippuric acid at all. Yet both are milk-fed, and the slight difference existing in the composition of their mothers' milk cannot be said to be sufficient to account for this disagreement in the nature of their urinary crystallisable excrementitious acid products. Secondly, notwithstanding its being a widespread and deeply rooted theory that sugar augments the formation of uric acid in the human body, and is consequently bad for gouty subjects, no urologist I have consulted has ever been able either to tell me how the idea originated, or adduce one single demonstrable fact in its support. My son Vaughan, while working last year in the Physiological Laboratory of the Sorbonne at Paris, not only gave dogs as much as half a pound of sugar a day, but himself took 400 grammes, equal to nearly thirteen ounces, in the twenty-four hours, without being able to obtain any evidence of an increase of uric acid taking place in the urine until the digestive functions had become seriously deranged. Thirdly, under certain pathological conditions, men have been known, even when for many days on spare diet, to eliminate enormous quantities of uric acid. Fourthly, while active muscular exercise increases, hot weather diminishes the excretion of uric acid by the urine. Nevertheless, the following biological facts totally upset the validity of the theory based on these data. For not only do the slow-breathing, sluggish-moving, carnivorous serpent, and the quick-breathing, muscularly active, grain-eating bird, and the still more strictly vegetarian insect, in the shape of the bee and the butterfly, all pass uric acid in their solid urines—and that, too, in, as far as has yet been ascertained, much about the same relative proportions to their bodily weight. Hence my argument that constitutional peculiarity, both as regards species and individuals, is a much more important factor in the production of uric acid in the animal economy than mere diet.

It is seen, then, that I never alluded to bears at all, and that the word bird ought to be substituted for that of bear in the report of my speech. My fear is that many more may have noticed the mistake than will peruse its correction.

I am, Sirs, yours faithfully,

GEORGE HARLEY, M.D., F.R.S.

Harley-street, W., March 29th, 1890.

CHEYNE-STOKES RESPIRATION.

To the Editors of THE LANCET.

SIRS,—For some years I have had under my care an old gentleman in very comfortable circumstances whose age is now eighty-six. In childhood he had teething convulsions, from which dates external strabismus of the right eye. He has been very deaf for many years, and is now suffering from cerebral softening. About five months ago he had one afternoon three slight epileptic fits, which, however, do not seem to have affected his general condition and have not been repeated. For nearly a year he has had general anasarca, especially of the feet and legs, but no ascites. He sleeps well, and eats well, though he has to be fed. He is at times very irritable, and obstinate, and always speaks very loudly; he will sit for hours looking over books which he often holds upside down, although I have reason to believe the sight of the left eye is good. He has incontinence of urine and occasionally also of fæces. The urine contains no albumen and no sugar, is acid, with a specific gravity of 1020. For several weeks at every visit, which I make twice a week, I have noticed very well marked Cheyne-Stokes respiration, which his nurse assures me is also present in sleep; if excited it will cease until tranquillity is restored. After the pause the breathing begins faintly at first, and then becomes stronger and louder until it resembles that of a man who has been running, then gradually declines until it ceases entirely. The pause almost invariably lasts thirty-five seconds, and then he breathes from nineteen to twenty-one times during the next forty seconds, and this sequence continues, I have reason to believe, throughout the day. If he speaks during the breathing space, he speaks like a man out of breath from running. I am not prepared to say whether this condition immediately followed the fits, nor can I say exactly how long it has continued. He is completely dressed every day and is carried downstairs; and, if fine, will go out for a drive or sit in his garden.

I am, Sirs, yours truly,

Plymouth, March 30th, 1890. J. ELLIOT SQUARE, F.R.C.S.

To the Editors of THE LANCET.

SIRS,—*Apropos* of the discussion upon Cheyne-Stokes respiration going on in your columns, to show that it is not incompatible with longevity, I would mention the following case, which, as it happens to be that of my own father, I have had special opportunity of noting, and I drew the attention to this same point of Dr. C. J. B. Williams when visiting him as long ago as 1874, as well as Dr. Milner Fothergill, who came down to see him three years later. My father, who will shortly enter his ninety-third year, has displayed this peculiarty for many years, and apparently without any detriment or embarrassment to his vital functions. The phenomenon is marked by the usual rhythmical details, completing a cycle—viz., the gradual abridgment of the respiratory process, the breathing becoming more and more shallow until the pause is reached, which after a short interval is broken by four or five forced inspiratory efforts in rapid succession, as if labouring to compensate for the suspended function and to reduce the arrears of carbonic acid accumulation. I may mention that, beyond occasional syncope and vertigo, from brain shrinkage and other senile changes, the cerebral condition generally seems unimpaired, and his mental activity is of a high order for his time of life; there is nothing remarkable in the circulatory system; the pulse, though of late more frequently unrhythmical, is sometimes a steady and regular 72. His general average of respirations is about 24. Ross and other neurologists appear to associate Cheyne-Stokes respiration, and rightly too, as a rule, with cerebral cardiac and renal affections, while, after his experiments with animals, Langendorff was led to believe it was due to a spasm of the arteries of the medulla; but under the circumstances such a case as the above might be regarded rather as a fitful departure from the normal condition than an actual disorder of the nervous mechanism, constituting a temporary loss of coördination of the respiratory function and possessing more clinical interest than significance. I do not observe any instance of or allusion to this phenomenon in Professor Humphry's recent work, "Old Age."

I am, Sirs, yours truly,

March 27th, 1890. H. S.

TORONTO UNIVERSITY LIBRARY RESTORATION.

To the Editors of THE LANCET.

SIRS,—If my recollection from two visits to the University of Toronto serves me correctly, its library, which has recently been destroyed by fire, included a valuable collection of medical and surgical works. There are many authors and possessors of duplicate copies of such works in this country who have only to be reminded of the severe loss the colonial university has sustained to desire to be included in the list of donors to the new library. I have no doubt that the hon. secretary to the Toronto University Library Restoration, 13, King's Bench-walk, Temple, will take charge of and acknowledge any donations that may be sent to him.

I am, Sirs, yours truly,

REGINALD HARRISON.

Lower Berkeley-street, W., March 28th, 1890.

DISEASE OF THE SACRO-ILIAC JOINT.

To the Editors of THE LANCET.

SIRS,—It may interest the profession to know that I again trephined the sacro-iliac joint on Sunday last at Stockport in an obscure case of eight years' standing, with a satisfactory result. The upper half of the joint was found to be carious, and a cavity was discovered behind the first portion of the rectum. On its completion the case will be published in full.—I am, Sirs, yours truly,

New Cavendish-street, W., April 1st, 1890. MAYO COLLIER.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Clinical Society.

THE meeting of the Newcastle Clinical Society on March 27th was the best, as regards attendance, of the session. Dr. Beatley presided. Dr. Ridley, hon. sec., showed cases of mastoid disease, in which trephining had been performed, with good results as to health and hearing. Dr. H. S. Baumgartner also showed a case in which the mastoid had been recently trephined, with good results; also a cyst of the broad ligament of the uterus, removed by shelling out from between the peritoneal coats of the ligament. The patient, a girl aged nineteen, made a good recovery. Mr. Adam Wilson showed a stomach with trumpet-shaped perforating ulcer of the pylorus. Dr. W. Murray spoke of the value of turpentine, given in half-ounce doses, in the treatment of hæmorrhage arising in these cases, which generally occurred in anæmic females. He also read a paper on "Starving into Health," or otherwise fasting into health, in which he quoted cases of apoplexy, obesity, and dropsy, where the patient's life was evidently saved by a period of absolute starvation, extending in some cases to fourteen days. The reading of this paper, for which Dr. Murray was accorded a cordial vote of thanks, gave rise to an animated and most interesting discussion. Some of the speakers, however, as Dr. Murray pointed out, considerably diverged from the text of his paper, and got on to side lines, such as venesection and mercurial treatment, while the sole point of his paper was starvation or total abstinence from food in the treatment of various diseases. This he very fully explained by illustrative cases and analogies.

The late Rev. J. H. Rutherford.

The committee of the schools with which the late Rev. J. H. Rutherford was so intimately connected, taking into account his expressed wish and the work already done by him in the direction of extending the School of Science and Art in Newcastle as a link between the elementary schools and the University, have resolved to erect a building capable of accommodating 1200 students, with class rooms &c. complete, to be called "The Rutherford Memorial College," at a cost of £10,000.

The Luke Armstrong Memorial Fund.

The committee of the Luke Armstrong Memorial Fund have issued a balance sheet and list of subscriptions, and mention is made that within three months the sum of £683 was subscribed, a proof of the estimation in which Dr. Luke

Armstrong was held by his friends and the public. The amount subscribed has been invested to found a Scholarship for the student who obtains the highest position in the honours division of the examinations of the University of Durham for M.B. Mr. A. E. Cope, who has been entirely educated at the Newcastle College of Medicine, has been awarded the first Scholarship, but it is open to all students graduating for the M.B. degree at Durham.

Gateshead.

A very handsome testimonial has been presented to Mr. A. Abraham, surgeon, of Gateshead, by the George Thornton France Lodge of Oddfellows, as a token of esteem for him personally, and in recognition of his skill as their medical adviser. This is the second presentation to Mr. Abraham within the last few months.

Death of a Centenarian at Whitby.

On Thursday last Ann Hunter died at Whitby Union Workhouse at the age of 100, having attained her centenary on New Year's Day last. She was a widow, and an inmate of the workhouse for many years. Her husband died about two years ago.

The late Mr. Matthew Brumell of Morpeth.

A very handsome and elaborately carved oak chair screen has been erected in St. Mary's Church, Morpeth, to the memory of the late Mr. Brumell, who practised in Morpeth for fifty years. It is the gift of his widow, Mrs. Ellen Brumell.

The Water-supply of North Shields.

The medical officer of health for North Shields, Mr J. E. Gofton, in his report for the past year, refers to the limited accommodation and unsatisfactory condition of the hospital for purposes of isolation, and states that in his opinion the water-supply is in a dangerous condition. He thinks that the town refuse is deposited too near for safety. Mr. John Pattinson, also of Newcastle, the well-known analytical expert, stated that the analysis showed so much organic impurity as to make it very doubtful whether the water from one reservoir is suitable for drinking or not; it should not, he says, be used for this purpose if better water can be had; and, further, Mr. Pattinson states that all the samples taken from the reservoirs contain extraordinarily large amounts of solid matter in solution, chiefly sulphate of lime, so that they are in this respect (of hardness) most unsuitable waters for a town supply, and that it is doubtful if such quantities of lime salts may not be hurtful to health.

Hair Teasing in Tynemouth Workhouse.

A paper has been sent to the guardians of the Tynemouth Workhouse, prepared by the medical officer of the Local Government Board, condemnatory of hair teasing as an employment for inmates. The report stated that nineteen inmates over seventy years of age and three under fifty had been employed in teasing hair. The subject has been referred by the guardians to their medical officer for report.

Newcastle-on-Tyne, April 1st.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Presidency of the Royal College of Surgeons in Ireland.

UP to the present time the President of the Royal College of Surgeons has only occupied the chair for twelve months, the vice-president in due course being elected to the presidency the following year. There were many who considered the scarcity of members of the surgical profession in Dublin who might be expected to hold that office rendered it advisable for the College to allow the President to hold office for two years. On the subject now before the College an interested person might argue that if the present President had determined to compete for a second year's tenure of that office due notice should have been given at the annual elections last June, inasmuch as there was sure to be some feeling in certain quarters at the prospect of a contest for the presidency. I believe it is probable that, if a contest should unfortunately take place, a meeting of the Fellows of the College will be called to consider the position, as likely to be injurious to the best interests of the College, and to cause an amount of friction among the Fellows greatly to be deplored. The following considerations may explain the difficulties. On June 21st, 1888, the Fellows approved in principle of prolongation of the term of presidency, and referred the resolution to the Council, recommending it to draw up a fresh scheme. A committee was thereupon appointed, and on May 21st, 1889, the committee reported that they had been unable to come to any satisfactory conclusion, and referred the question back to the Council, and, if necessary, to the College. I may add that Dr. Moore and Dr. Carte, who are candidates for the Vice-Presidency for next June, are both willing, if elected, to hold office for two years, and Mr. Croly (Vice-President for 1889–90) is also willing to hold office as President for two years if elected in June. In this way the biennial presidency could be settled in a satisfactory manner, with the consent of all parties interested.

The Charge against a Medical Student.

Adams, the medical student who had pleaded guilty to an indictment charging him with stealing overcoats belonging to other students, was on Saturday, at Green-street Courthouse, brought up for sentence. The Recorder, being anxious to ascertain whether a sentence of imprisonment would have the effect of afterwards preventing the accused pursuing his medical studies, deferred passing sentence until next sessions.

City of Dublin Hospital.

The expenditure last year over receipts came to £1088. The bequests included one of £2700 from the trustees of the "Bannon" estate. The board have obtained adjoining premises, and trust, as soon as funds permit, to increase the accommodation for patients, as also to improve the arrangements for the resident staff and for the nurses in the hospital.

Cork South Charitable Infirmary.

During last year 13,470 persons received either medical or surgical relief at this institution, yet the hospital does not receive the support it deserves, and the expenditure exceeded the income by a comparatively large amount. The expenditure on stimulants has been gradually curtailed from £153 3*s.* 7*d.* in 1883 to £69 19*s.* 4*d.* in 1889.

Dublin, March 31st.

CANADA.

(FROM A CORRESPONDENT.)

The Toronto University Library.

THE destruction of the University buildings, with its valuable library and museum, has called forth a widespread feeling of sympathy, and subscriptions of money and books have already been received from friends in England, Scotland, and the United States. The subscriptions towards the library fund amount to over 26,000 dols. and more than 500 volumes. As only 150,000 dols. was the amount of insurance upon the building and library, it will be necessary to raise by subscription a large sum to defray the cost of restoration. The Ontario Government have introduced a Bill granting 160,000 dols., and it is expected the City of Toronto will vote at least 50,000 dols., while the Province of Quebec has given 10,000 dols.—all towards the building fund. The University will be rebuilt upon the same general external design as the old building, that portion formerly used as Convocation Hall being rebuilt as the library, and a new and larger hall erected for purposes of convocation; the museum to be removed to the biological department, thus allowing sufficient space in the new building for the much-needed additional lecture rooms. No doubt the powers that be will endeavour to make the place fireproof, paying proper attention to the illuminating apparatus, and obviate the use, even upon special occasions, of the mischievous coal oil lamp. The prospects are encouraging for the speedy restoration of this the capstone of our provincial educational system, and thus, "purged as by fire" from the calcined ruin, Toronto University will arise as in its former beauty of symmetry.

The University of Toronto Medical Society.

This Society, which has been in existence for a number of years, having decided to establish a lectureship similar to those carried on in Great Britain, has arranged with Dr. E. C. Seguin of New York to deliver the first of the series. Most interesting and instructive lectures were delivered on March 11th and 12th, on "The Management of some Important Neuroses." The lecturer treated the subject in a manner showing the thorough work accomplished by one who is a master student among neurologists.

A Health Department for the Dominion.

Dr. Roome recently moved, in the Dominion House, a resolution favouring the establishment of a Dominion Health Department, but the Premier did not feel justified in entering upon the domain of the provincial authorities; he however suggested the meeting of provincial representatives in a national health conference to devise united action. The motion was therefore withdrawn.

Prisons and Charities Report for Ontario.

From the report of the Inspector of Prisons and Charities for Ontario, just presented to the Legislature, the following interesting facts are gleaned. There were, on Sept. 30th, 1889, 3607 persons confined in the various institutions of the province as lunatics or idiots, an increase of 111 over the previous year, while 446 applicants were awaiting admission; to meet the increase two cottages, with a capacity of fifty each, had been erected during the year, and two or more additional ones will soon be ready for occupation. During the year 182 patients were discharged cured, 62 improved, and 31 unimproved; there were 174 deaths and 9 escapes. The average weekly cost was 2 74 dols. Of the 14,415 admitted since 1841, less than one-half (6513) are classed as native born, the remainder being other nationalities.

Death from Chloroform.

A death occurred in Hamilton on March 7th of a well-known citizen, Captain Zealand, aged sixty-one, who was about to be operated upon for some disease of the jaw. Chloroform was administered, and shortly after the commencement of the operation it is reported that difficulty was noticed with the respiration. All efforts on the part of the attending surgeons failed to restore life. The necropsy revealed some fatty degeneration of the heart. Death was thought to be the result of heart failure.

Toronto, March 14th.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon Edward Landon retires from the Service, receiving a gratuity (dated April 2nd, 1890).

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon John K. Conway to the *Trafalgar* (dated April 2nd, 1890). Staff Surgeons: Joseph Wood, M.D., to the *Eagle* (dated April 2nd, 1890), Howard J. M'Todd to the *Magicienne*, and James A. Collot to the *Ajax* (both dated April 15th, 1890). Surgeons: John L. Aherne, B.A., to the *Trafalgar* (dated April 2nd, 1890); John T. Dinnis to Malta Hospital (dated March 28th, 1890); Henry G. Jack to the *Research* (dated April 1st, 1890); Graham E. Kennedy to Malta Hospital, and Richard E. Biddulph to the *Benbow* (both dated April 17th, 1890). Mr. William S. Elliott, M.B., to be Surgeon and Agent at Malahide, and Mr. Charles J. Fahie to be Surgeon and Agent at Rush Rogerstown, Lambay, and Portrane.

VOLUNTEER CORPS.—*Artillery:* 1st Cumberland: Acting Surgeon J. Little, M.D., to be Surgeon (dated March 29th, 1890).—*Rifle:* 1st Lanarkshire: Surgeon and Surgeon-Major A. K. Irvine, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated March 29th, 1890).—5th (Ardwick), the Manchester Regiment: Acting Surgeon A. H. Smith to be Surgeon (dated March 29th, 1890).—*Infantry:* The West Yorkshire Brigade: Surgeon and Surgeon-Major J. S. Loe, 3rd Volunteer Battalion, the Prince of Wales's Own (Yorkshire Regiment), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated March 29th, 1890).—The East Yorkshire Brigade: Surgeon and Surgeon-Major John William Taylor, M.D., 2nd Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated March 29th, 1890).

GREAT ORMOND-STREET CHILDREN'S HOSPITAL.—The foundation stone of the new wing required to complete this institution was recently laid, in the presence of a large assembly of ladies and gentlemen interested in the institution, by John Hart, aged eleven, a patient, the son of a sergeant in the Second West Kent Regiment. The child's left leg had been injured by the kick of a horse, and was recently amputated in this hospital. Funds have been raised which will suffice to complete the structure, but £9000 additional is required for the purposes of lighting, heating, fitting, and furnishing.

Obituary.

CHARLES STEWART POLLOCK, M.A. CANTAB., M.R.C.S., L.R.C.P.

IT is with deep regret that we have to record the death of Mr. Pollock after an illness of seven days. On Saturday, March 8th, while staying at Twyford, he was seized with a rigor, and on Sunday, the 9th, when seen by Mr. Swindale of Bracknell, presented the usual symptoms of influenza. On Wednesday he was attacked with pain in the left side, with all the physical signs of pleurisy with effusion. His pulse was very bad, and his expectoration rust-coloured. On Thursday Dr. Julius Pollock saw him in consultation with Mr. Swindale. On Friday morning he was worse, and his respiration 42. In Dr. Pollock's words, "he did not seem to be able to make any effort to rally from the disease," and he died that evening apparently of exhaustion.

Mr. Pollock was born on April 4th, 1864, and was a son of the present Right Hon. Baron Pollock. He was at school at Charterhouse. In October, 1882, he entered at Trinity College, Cambridge, and three years later he took his B.A. degree with honours, obtaining a second class in the Natural Science Tripos. In 1886 he entered at St. George's Hospital, where he held the appointments of assistant surgical registrar and ophthalmic assistant. He was a candidate for the post of assistant house-surgeon in the examination to be held in June. Last October he obtained the M.R.C.S. and L.R.C.P., and, in addition, he had passed all the examinations for the M.B. and B.C. Cantab., except the final in Medicine. Such a record proves that in him St. George's Hospital has lost a man of no mean ability, and one whose powers gave promise of an almost certainly successful career. Intensely fond of his profession, he lost no opportunity of learning it. What he had to do he did with a will, "not grudgingly or of necessity," but to the very best of his ability, as those who have had to work with him can testify. He could have no higher praise than that it should be said of him that he did his duty and that he did it well. There were very few who were brought in contact with him who did not like and respect him. His good sense, kindness, uprightness, and unfailing courtesy combined to make him universally popular at school, college, and his hospital—in a word, he was a gentleman in the fullest and truest sense of the term. There are few who knew him but were the better for his friendship, and there are some who feel they have lost a friend they cannot replace. Coming, as his death does, so closely after that of Dr. Sortain, it is doubly sad. Within three months two most promising men have been cut down at the very outset of their career almost at a moment's notice. "Those whom the gods love die young" is but a lame consolation for those who see two lives cut short just as they were beginning to be useful. Both men were in their different ways such as St. George's Hospital could ill afford to lose. Of either it is not too much to say

> "Clarum et venerabile nomen,
> .... et multum nostræ quod proderat urbi."

RICHARD GERARD WILDE, M.A., M.B., M.S.

WE regret to chronicle the death of a very promising young member of the profession, who has fallen at his post. Dr. Richard Gerard Wilde contracted enteric fever whilst serving the office of house physician at the London Hospital. The attack was ushered in by rheumatoid symptoms, but when its nature was declared it was evident that the attack was a particularly severe one. This, occurring in one who, by earnest and zealous devotion to onerous duties, had drawn deeply upon his reserve of vigour, led to great anxiety as to its issue. Unfortunately the fears entertained were soon proved to be well founded. Rapid exhaustion occurred, with hæmorrhage from the bowels, and Dr. Wilde passed away at the early age of twenty-seven, on March 27th. Dr. Wilde was educated at Haileybury and Clare College, Cambridge, and had taken his degrees of M.A., M.B., B.S., and the diplomas of the Royal Colleges. Dr. Wilde was exceedingly popular amongst his fellow students and officers; his rectitude, self-sacrificing attention to his duties, keen and bright intelligence, and invariable good nature, made him stand forth as an example and stimulus to those about him. His loss is deeply lamented not only by his fellow officers and

students, but by all connected with the hospital. As far as can be ascertained this is the only death that has occurred in the London Hospital of a member of the resident staff. To perpetuate Dr. Wilde's memory, and permanently record the circumstances of his death, it is proposed to endow a cot in the children's ward. This is a peculiarly appropriate memorial, as Dr. Wilde used to be apt to linger in this ward, and play with and brighten up the little sufferers under his charge.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the second examination of the Board in Anatomy and Physiology at a meeting of the Examiners on Monday, March 31st:—

G. W. Kilner Crosland, E. W. Shaw Hughes, H. G. Paterson, and E. S. Steward, students of Yorkshire College, Leeds; J. Dulberg, Owens College, Manchester, and University of Wurzburg; H. Guy Dain, A. J. Martin, and E. St. John Whitehouse, Queen's College, Birmingham; W. H. Ligertwood, C. M. Phillips, J. Smyth, and E. White, Bristol School of Medicine; J. C. Hepton, S. T. Lord, C. C. Preston, and W. Moritz Steinthal, Owens College, Manchester: C. M. Corkery, Bombay, and Queen's University, Cork: G. Browning, University of Rennes, France; J. Keary Troup, Melbourne and Edinburgh Universities; and A. Ivor Thomas, University College, Liverpool.

Anatomy only.—J. E. Abbott, J. E. H. Mitchell, and J. Nicholson, Yorkshire College, Leeds; W. W. Darlington and G. A. Wilkes, Queen's College, Birmingham; T. Aspinall and J. Noble Platt, Owens College, Manchester; and S. Wilkinson, University College, Liverpool.

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—The following candidates have satisfied the examiners:—

SECOND EXAMINATION.

First Division.—J. B. Carter, A. J. Edwards, C. E. M. Lowe, E. C. McCarthy, *C. R. Marshall, ‡F. C. Scotson, †J. Stephenson, R. T. Turner,—all of Owens College.

Second Division.—F. J. H. Coutts, C. A. Davies, C. C. Garfit, A. Murgatroyd, J. H. L. Tylecote, and W. A. Wilkinson,—all of Owens College.

* Distinguished in Anatomy. † Physiology.
‡ Materia Medica and Pharmacy.

FINAL EXAMINATION.

Part I.—A. E. Ash, Owens College; R. A. Beaver, University College; E. M. Brockbank, Owens College; A. J. Chalmers, University College; H. Horrocks, H. K. Ramsden, C. K. Rawes, and P. Worley, Owens College.

Part II. (Second Division).—J. H. Green, W. Nuttall, and Herbert Ramsden, Owens College; J. W. Shannon and John Teare, University College.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and were admitted as Licentiates of the Society in February, 1890:—

Bradley, James E. Campbell, St. George's Hosp. and Camb. Univ.
Cargill, Lionel Vernon, King's College Hospital.
Cox, Arthur Brooks, Sydney University and Middlesex Hospital.
Dobbs, Matthew, Charing-cross Hospital.
Drake, Ernest Charles, St. Bartholomew's Hospital.
Du Cane, Herbert, Glasgow University.
Dunn, Edwin Dacre, St. Thomas's Hospital.
Hawley, Frederick Hulme, Charing-cross Hospital.
Holt, James, Leeds.
Jones, Charles Ranald Handfield, St. Mary's Hospital.
Lewis, Albert Cornwal, University College Hospital.
Logan, Roderic Robert Walter, St. Thomas's Hospital.
May, Francis Hollingsworth, General Hospital, Birmingham.
McCormick, John George, Dublin University.
Morris, Edwin Haigh Grant, Camb. Univ. and St. Thos.'s Hospital.
Posnett, Edward, Yorkshire College.
Shillingford, Henry Bartlett, Guy's Hospital.

Admitted Licentiates in March:—

Anderson, Richard Walker, University College Hospital.
Beaver, Hugh Atwood, Victoria University, Liverpool.
Fyffe, Wm. Kington, Camb. Univ. and St. George's Hospital.
Given, John Cecil Mackmurdo, Liverpool Royal Infirmary.
Lightbody, John Henry, Liverpool Royal Infirmary.
Levick, George Davick Baker, Middlesex Hospital.
Naylor, Maurice Craven, Sheffield.
Powell, Rhys, King's College Hospital.
Thomason, Richard Henry, King's College Hospital.
Wainwright, Lennox, London Hospital.
Wilkinson, George, Camb. University and St. Mary's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Museum of the College will be closed on April 4th and 5th, but open (as usual on Bank holidays) on Easter Monday. The Library will be closed on the 4th, 5th, and 7th.

LONDON HOSPITALS.—The House Committee has decided to improve the sanitary condition and make other arrangements in the institution, at an outlay of £7000.

WESTMINSTER SCHOOL OF MEDICINE.—On Tuesday night an explosion and a fire occurred at this school in the two back rooms on the ground floor, used as a chemistry laboratory. A considerable amount of damage was done. Its origin is unknown.

DEATH FOLLOWING THE ADMINISTRATION OF CHLOROFORM.—A traveller, Caleb Henry Jones, while undergoing an operation for some skin disease at Swansea, died suddenly during the administration of a mixture of alcoholic chloroform and ether.

THE Daventry Town Council, at a special meeting held last week, entered into an agreement with Mr. C. Nicholson Lailey of Westminster for preparing a scheme for main drainage, in order that the town clerk may apply to the Local Government Board for the loan required to carry out the work.

SUFFOLK GENERAL HOSPITAL.—At a meeting of governors of the Suffolk General Hospital, held at Bury St. Edmunds on the 11th ult., the Duke of Grafton presiding, an amicable settlement with the medical staff was arrived at, and the sixty-fourth annual report submitted, from which it appeared the income from subscriptions had decreased £24 11*s.* 10*d.*, the total expenditure exceeding the year's receipts by £132 19*s.* 5*d.*

ANOTHER GENEROUS GIFT TO BARNSLEY. — The Mayor (Alderman Wood) announced at the meeting of the Town Council held last week that he had received a letter from Mrs. Lambert (the donor of the Kendray Hospital), stating that she had bequeathed £2000 to the town in a new will she had made, as in the lapse of years an enlargement of the hospital might be necessary. A cordial vote of thanks was accorded to Mrs. Lambert for her generosity.

HYGIENE IN CONSTANTINOPLE.—The health of Constantinople has, for many months past, been below its average standard. The sanitary appliances introduced in the construction of the houses appear to be deplorably imperfect, and their wretched arrangements are not assisted by an efficient supply of water. As regards external drainage, Constantinople is finely situated, but there are many quarters where the gradient of the sewers is too slight to ensure a rapid outflow.

VACCINATION GRANT.—Mr. Edward A. Piggott, L.R.C.P. and S. Edin., Public Vaccinator for the second district of the Risbridge Union (Suffolk), has received a certificate from the Local Government Board under Section 24 of the Local Government Act, 1888, entitling him to the award (second time) for efficient vaccination in his district. These payments are now made by the County Councils under the provisions of the Local Government Act, 1888.

QUEEN'S HOSPITAL, BIRMINGHAM. — The report from this hospital states that the past year has been marked by exceptional financial prosperity, and the governors had been enabled almost entirely to clear off a long-standing deficit of £850. The committee regret to record the premature retirement of Sir James Sawyer from the post of senior physician, and take the opportunity of again expressing their sense of his valuable services. He has been elected to the office of consulting physician, Dr. Arthur Foxwell being elected honorary physician in his place. The committee in their report bear witness to the excellent manner in which the various officers have discharged their duties, and especially refer to the general superintendent, Mr. A. R. Hume, to whose salary they have made a well-merited addition.

THE ROYAL OPHTHALMIC HOSPITAL.—The annual meeting of the governors of the Royal Ophthalmic Hospital was held on March 13th, in the building, Moorfields, Mr. John Deacon presiding. The report pointed out that more help was urgently needed. No less than 2337 patients had required temporary residence in the hospital during the past year, and there were 1890 cases for operations of various kinds. The attendances of out-patients represented an average of 414 per day. Referring to the enlargement of the building, Mr. Lawson thought it would be a mistake to patch up the old building, and proposed that a new hospital should be built. The Chairman thought funds would be forthcoming for this purpose, and that the position which the hospital had maintained as the first ophthalmic hospital in Europe should be upheld.

THE COLLEGE OF STATE MEDICINE.—His Royal Highness the Prince of Wales has accepted the office of President of the above institution.

THE VACCINATION ACTS.—A return, moved for last year by Mr. Bradlaugh, has been presented to the House of Commons, showing the number of persons who have been imprisoned or fined for non-compliance with the Vaccination Acts. In England 10,585 persons, and in Wales 75, have been fined, and in England 113 persons have been imprisoned on this ground. The imprisonment has in only one case lasted beyond fourteen days.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following Anatomical Prizes have been awarded for the session 1889-90:—*Junior Descriptive Anatomy:* 1st Prize (£3 and Medal), Mr. Sweeny; 2nd Prize (£1), Mr. Power.—*Senior Descriptive Anatomy:* 1st Prize (£3 and Medal), Andrew Gibbs; 2nd Prize (£1), R. Oliver.—*Practical Anatomy:* First year: 1st Prize (£3 and Medal), Mr. Power; 2nd Prize (£1), Mr. Sweeny. Second year: 1st Prize (£3 and Medal), R. Oliver; 2nd Prize (£1), A. Cooper. Third year: 1st Prize (£3 and Medal), Emily Dickson; 2nd Prize (£1), Mr. Power.

OWENS COLLEGE.—The rapid growth of the medical school of the College and other circumstances have rendered it desirable that the Professorship of Pathology should be provided with an endowment such as would allow its future occupants to devote themselves altogether to the duties of the chair. To the great satisfaction of the council and the medical department, the residuary legatees of the late Mr. Daniel Procter (Messrs. William Bickham, C.R. Allen, and William Bickham, jun.), recognising the importance of pathological studies, have decided to contribute the sum of £6000 for such endowment, which will henceforth be associated with the late Mr. Procter's name.

BRISTOL ROYAL INFIRMARY.—At the annual meeting, held on the 25th ult., the chairman (Mr. C. D. Cave) in moving the adoption of the report, which was carried, made an interesting statement of the career of the hospital in the past ten years, well calculated to give satisfaction to the subscribers and donors to its funds. During the year 1889 there was a decrease in the number of in-patients, owing to the closing of the wards for repairs and cleaning, and also of over 3000 out-patients, attributable to the more rigid insistence upon the production of admission notes. Of 593 cases of major operations, 523 were either cured or distinctly relieved. The death-rate in the surgical department was 3·8 per cent.

UNIVERSITY COLLEGE HOSPITAL.—The annual general meeting of the governors, donors, and subscribers of this hospital was held in the board-room on the 28th inst., the treasurer of the Hospital Committee presiding. The report pointed out that the requirements of the times rendered necessary the rebuilding of the hospital, which could not be undertaken until £30,000 had been guaranteed. During the past year, ninety-five patients had been sent to the "Wakley" Convalescent Home, which is under the management of this hospital. The donations to the hospital show a falling off of £699, and the subscriptions have decreased £111. The committee have therefore to make an urgent appeal for increased support.

SOCIETY FOR THE STUDY OF INEBRIETY.—At the annual meeting on Tuesday last, in the rooms of the Medical Society of London, after a reception to Dr. F. R. Lees, the President, Dr. Norman Kerr, in his annual address referred to the marked advance in public opinion on compulsory legislation for diseased inebriates, as evidenced by the fact that the Inebriates' Legislation Committee of the British Medical Association had, in response to circulars to Poor-law guardians, received five times more replies in 1889 than in 1882. The favourable returns were in much the same proportion. Scotland, through the legal, clerical, and medical professions, was asking for full power to compel inebriates of all classes to enter special homes, and for the treatment of the poor at the public charge. The records of the Dalrymple Home for Gentlemen at Rickmansworth proved that scientific treatment of the disease of inebriety was very successful, more than one-half of the patients discharged having kept firm. The demand for compulsion was also becoming stronger on the Continent and in the United States. He strongly condemned hypnotism in the treatment of inebriates.

THE GENERAL HOSPITAL, CHELTENHAM.—The report for 1889 states that the year commenced with £258 10*s.* in hand, and, after drawing £570 1*s.* 4*d.* from the legacy fund, ended with a balance due to the treasurer of £58 4*s.* 10*d.* There had been a decrease of £112 in the Hospital Sunday and Saturday donations. The excess of ordinary expenditure over income was £376 8*s.* 11*d.*

BATHURST HOSPITAL, NEW SOUTH WALES.—The honorary staff has publicly announced that, in consequence of the action of the committee at a meeting held in January last to discuss Mr. Paul's motion, they will not, save under certain specified conditions, undertake to attend to any cases of accidents admitted to the hospital. The hospital dispute has indeed been considerably complicated, and a requisition to the mayor was in course of signature to convene a public meeting to consider the present emergency. The matron and five nurses have resigned.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—The forty-first annual meeting of the governors of the above institution was held in the Bell Medical Library on Tuesday, March 11th. The report stated that the number of in-patients treated during the past year had been 2289, as compared with 2063 in the preceding year; 1164, as accidents, or urgent cases, were admitted without tickets. The number of out-patients during the past year had been 13,217, showing an increase of 683 as compared with the preceding year; of these, 5578 were treated without tickets, being accidents or urgent cases. The total number of patients, in and out, admitted during the past year had been 15,506. The cost of each in-patient was £2 19*s.* 10$\frac{3}{4}$*d.*, the average stay in the hospital twenty-two and a half days, and the daily average 135. The income amounted to £7348 13*s.* 8*d.*, and the expenditure to £7934 9*s.* 3*d.*, the increase in the latter being due to expenses incurred in perfecting arrangements at the Convalescent Home at Penn, and in structural improvements of the main building.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Consolidation Bill.

IN the House of Lords, on Saturday, March 29th, the Royal Assent was given, amongst others, to the Lunacy Consolidation Bill.

The Medicine Stamp Act.

In the House of Commons on Friday, March 28th, Mr. Buchanan asked the Chancellor of the Exchequer whether he could take steps to amend the Medicine Stamp Act or to secure its more uniform administration, or otherwise endeavour to allay the dissatisfaction felt amongst chemists and druggists on the subject. The Chancellor of the Exchequer said there appeared to be no general dissatisfaction, and the trade had manifested no general desire for the amendment of the Medicine Stamp Act. Every attempt, however, had been made to secure its uniform administration. In addition to issuing a summary of the medicine stamp law, with observations thereon for the guidance of chemists, the Inland Revenue Department had undertaken at the request of the trade to advise as to the liability involved by the use of labels. Those labels numbered some thousands per annum, and it was almost unavoidable that varying decisions should occasionally be given considering the many relaxations from the comprehensive charge imposed by law.

Infectious Disease (Prevention) Bill.

This Bill passed through committee.

Insanitary Law Courts.

On Monday, March 31st, Mr. Channing asked the Home Secretary whether his attention had been called to the statement of Mr. Justice Denman, at Chelmsford, on Friday, March 21st, that the Assize Court was in such an insanitary state as to be a perfect disgrace and dangerous to judges, counsel, and prisoners, and, further, to the similar comments made by Mr. Justice A. L. Smith and Mr. Justice Wills, on Thursday, March 27th, at Cardiff, as to the sickening smells in the Assize Court at Cardiff; whether attention was drawn by the Departmental Committee two years ago to the insanitary condition of these Courts; and whether he would take immediate steps, by representations to the local authority or otherwise, to have these and other courts which might have been similarly complained of put into a proper sanitary condition.—Mr. Matthews stated that his attention had been called to the state of the court at Chelmsford, but not to the Cardiff court. The duty of providing a proper court house and accommodation for prisoners awaiting trial rests with the local authorities. In consequence of the report of the committee of 1886, he had made strong representations to all the local authorities throughout the country, including those of Chelmsford and Cardiff. At Cardiff many improvements had been made. With regard to Chelmsford, he again in July last asked the justices to take the earliest opportunity of giving effect to the recommendations of the Committee, and was now making further inquiry with regard to both places.

University of Toronto.

In reply to a question by Sir John Lubbock as to whether the Roya Charter of the University of Toronto gave it authority to issue medical and other degrees outside the diocese of Toronto, Baron de Worms said that he could not make any statement as to the powers of this university, as the question was under reference to the law officers.

Tuberculosis in Cattle.

On April 1st, Mr. Chaplin, in reply to Mr. Knowles, said that, after communication with the President of the Local Government Board, he had intimated to the gentlemen who desire to wait upon them that they should be happy to receive them at the Board of Agriculture on Thursday, April 24th, at half-past one o'clock, if that day was quite convenient to them.

Ventilation of the House of Commons.

In the Committee of Supply, on the vote for public buildings, Dr. Tanner suggested that the ventilation of the House might easily be improved; and Mr. Plunket said he would be very glad to confer with him as to whether it was possible to do anything more in that direction.

Contagious Diseases Animals (Pleuro-Pneumonia) Act.

Mr. Chaplin, in explaining the object of this Bill, said it was proposed to confer on the Board of Agriculture further powers than those previously given to local authorities under various Acts of Parliament for the purpose of dealing with this disease. It was proposed to place at the disposal of the Board of Agriculture a sum of money which would obviate the necessity of trenching on local resources, which could not be expected to submit to a large and wholly unlimited expenditure of their funds by a central department over which they had no control. It was further proposed, in the event of any deficiency arising, that that should, in the case of Great Britain, be met out of the local taxation in the proportions embodied in the Bill, which, however, considering that the whole deficiency would be distributed throughout the different counties, would only be a fractional amount. In the case of Ireland, the Lord-Lieutenant and the Privy Council would be substituted for the Board of Agriculture.—Mr. Mundella thought the only way to effect the object of this Bill was by the poleaxe, and the slaughtering of all affected cattle. He did not intend to oppose the Bill. Dr. Farquharson and Dr. Cameron expressed their satisfaction with the Bill. The Bill was read a second time, and the Committee stage fixed for April 24th.

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WRIGHT & CO., Bristol; SIMPKIN, MARSHALL, & CO., London.
The Workhouse and its Medical Officer. By A. Sheen, M.D. St. And. Second Edition. 1890. pp. 80. Price 2s. 6d.

The Secret of Perfect Health: Disease rendered preventable and removable by washing its Germs out of the Body; by Walter S. Moon (Offices of "Sanitary Engineering," London); price 1s.—"Before my Judges": being a Verbatim Report of Dr. Barnardo's Speech on the Gossage Case (J. F. Shaw & Co., London); price 2d.—The Kent Dog Owners and the new Muzzling Order; a Verbatim Report of the Proceedings at the Board of Agriculture, with a reply to Mr. Chaplin's Defence; by Geo. Candy, Q.C. (The Dog Owner's Protection Association, London, 1890); price 6d.—Leçons sur deux Cas d'Hystérie provoquée par une Maladie Aiguë (Fièvre Typhoïde et Grippe); par le Professeur J. Grasset; recueillies et publiés par le Dr. G. Rauzier (G. Masson, Paris, 1890).—Leçons sur la Grippe de l'Hiver 1889–1890; par le Professeur J. Grasset; recueillies et publiés par le Dr. G. Rauzier (G. Masson, Paris, 1890).—Die Blasenentzündungen; von Dr. Thorkild Rovsing (August Hirschwald, Berlin, 1890).—School Hygiene, including Simple Directions respecting Ventilation, Eyesight, Infectious Diseases, and First Aid in Injuries; by W. J. Abell, B.A., 1890 (Longmans, Green, & Co., London); price 1s.—Exercises in Practical Chemistry, an Introduction to Qualitative and Quantitative Analysis; by Dr. W. R. Hodgkinson, F.R.S.E. (Geo. Kenning, London); price 2s.—The Journal of the Royal Agricultural Society of England, third series, Vol. I., Part 1; to be continued quarterly (John Murray, London); price 3s. 6d.—Inflammation of the Vermiform Appendix: its Results, Diagnosis, and Treatment; by Thos. G. Morton, M.D. (J. B. Lippincott Company, Philadelphia, 1890).—Index-Medicus: Authors and Subjects, Vol. XII., No. 2, February, 1890 (Trübner & Co., and Lewis, London).—What Became of Him? by Fred. C. Milford (Dean & Son, London); price 1s.—Magazines for April: Good Words, Sunday Magazine (Isbister), Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper (Religious Tract Society), Scribner's, Lippincott's, Phrenological Magazine.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

DAVIS, DAVID, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Builth Rural District.

DRAGE, LOVELL, M.B., M.R.C.S., has been reappointed Medical Officer for the Hatfield Rural District.

FOOTNER, J. BULKLEY, F.R.C.S. Eng., has been appointed Honorary Surgeon to the Tunbridge Wells General Hospital, vice F. Manser, resigned.

GIBBES, C. C., M.D. Aber., L.R.C.P. Lond., has been reappointed Medical Officer for the Kingston Rural Sanitary District.

HIGGINS, HUBERT, M.R.C.S., L.R.C.P., has been appointed House Surgeon to Addenbrooke's Hospital, Cambridge, vice A. Street, M.B., F.R.C.S.

HUTCHINSON, JONATHAN, F.R.C.S., has been appointed Honorary Consulting Surgeon to the Jewish Home for Incurables.

JARDINE, ROBT., M.B. Edin., M.R.C.S., has been appointed Physician in the Department of Diseases of the Chest, Glasgow Public Dispensary.

LAW, EDWARD, M.D., C.M. Edin., M.R.C.S., has been appointed Physician to the London Throat Hospital, vice Coleman Jewell, M.B., resigned.

MITCHELL, C. J. C., M.D. Brussels, M.R.C.S., has been appointed Medical Officer for the Fifth and Sixth Districts of the Parish of Birmingham.

OSBALDESTON, L. F., M.R.C.S., has been reappointed Medical Officer for the Third District of the Hatfield Union.

RONALD, ARTHUR E., M.B. & B.S. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer to the Royal Free Hospital, Gray's Inn-road, vice Herbert G. Cook, resigned.

SEDGWICK, JAMES, M.D. St. And., M.R.C.S., has been reappointed Medical Officer for the Northern Division of the Great Ouseburn Union.

SERGEANT, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the County of Lancashire.

SMITH, F. J., M.B., M.R.C.P. Lond., has been appointed Honorary Consulting Physician to the Jewish Home for Incurables.

SMITH, K. R., M.D. Lond., M.R.C.S., has been appointed Medical Officer for the Seventh and Eighth Districts of the Totnes Union, vice Thompson, resigned.

THOMPSON, A. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the South Division of the Great Ouseburn Union.

WETHERED, FRANK J., M.D., M.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed an Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Dr. Sidney Martin, resigned.

WETWAN, W. A., M.R.C.S., L.S.A., has been appointed Medical Officer for the No. 2 District of the Bridlington Union, vice Dr. Nelson, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—A vacancy in the Honorary Acting Out-patient Staff. (Apply to Hon. Sec., 43, Waterloo-street, Birmingham.)

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W. — Resident Medical Officer for one year. Salary £80 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary £100 per annum. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

FEMALE LOCK HOSPITAL, Harrow-road, W.—House Surgeon. Salary £100 per annum, and board and lodging.

GENERAL INFIRMARY, Leeds.—Resident Officer at the Ida Hospital for six months. Honorarium £25. Two House Physicians, one for six and one for twelve months. Two House Surgeons, for twelve months. Board, lodging, and washing are provided in the Infirmary.

GOOLE FRIENDLY SOCIETY'S UNION.—Medical Attendant. (Apply to Mr. J. Houghton, Board School, Old Goole, Yorks.

HOLBORN UNION, Clerk's Offices, Clerkenwell-road, E.C.—Assistant Medical Officer at the Infirmary, Archway-road, Upper Holloway, N. Salary £100 per annum, with board, lodging, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. House Physicians.

MACCLESFIELD GENERAL INFIRMARY.—Senior House Surgeon. Salary £100 for the first year, with an increase of £10 the second year, with board and residence.

OWENS COLLEGE, Manchester.—Demonstrator in Materia Medica and Pharmacy. Stipend £100 per annum.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon, Salary £50 per annum, with board and residence.

RANGOON MUNICIPALITY.—Health Officer to the Municipality. Salary Rs. 600 per mensem, rising by annual increments of Rs. 50 per annum to Rs. 1000. (Apply to Mr. J. Short, Secretary, Rangoon Municipality.)

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer on State Medicine and Public Health.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY.—House Surgeon (non-resident). Salary £200 per annum.

SUN LIFE INSURANCE SOCIETY, 63, Threadneedle-street, London, E.C.—Second Medical Officer.

Births, Marriages, and Deaths.

BIRTHS.

BOWDEN.—On March 27th, at Chapel-place, Ramsgate, the wife of Reginald T. Bowden, M.D., of a son.

FAULKNER.—On Jan. 23rd, at Hastings, Hawkes Bay, New Zealand, the wife of Joseph Faulkner, M.R.C.S.E., L.R.C.P.L., of a son (stillborn).

GROUND.—On March 21st, at Maidstone, the wife of Edward Ground, M.D., of a daughter.

HAMILTON.—On March 30th, at Melrose House, Green-lanes, Stoke Newington, the wife of Thomas Hamilton, M.B., F.R.C.S.E., of a daughter.

MORGAN.—On March 24th, at Caledonian-road, Holloway, the wife of Charles Jeffrey Morgan, M.R.C.S., of a daughter.

NICOLL.—On March 29th, at Saintbury, Upper Clapton, the wife of T. Vere Nicoll, M.R.C.S., L.R.C.P.Lond., of a daughter.

PHILLPOT.—On March 22nd, at Brooklands, Hemel Hempstead, Herts, the wife of Geo. F. Phillpot, surgeon, of a son.

PINNOCK.—On Feb. 14th, at Winchester House, Ballarat, the wife of Robert Denham Pinnock, M.D., Surgeon-Major Victorian Military Forces, of a daughter.

SAINSBURY.—On March 23rd, at Welbeck-street, W., the wife of H. Sainsbury, M.D., of a daughter.

MARRIAGES.

FERGUS—WENLEY.—On March 28th, at St. George's, Charlotte-square, Edinburgh, John F. Fergus, A.M., M.B., C.M., son of the late Andrew Fergus, M.D., M.R.C.S., of Glasgow, to Isabella Romanes, daughter of James Adams Wenley, Treasurer of the Bank of Scotland.

LOVITT—HILLMAN.—On March 27th, at the Congregational Church, Ilkley, Yorkshire, Robert Lovitt, L.D.S. Eng., of Albany-street, Regent's Park, to Lilian, daughter of the Rev. S. D. Hillmann, of Ilkley.

DEATHS.

CALLAWAY.—On March 26th, at Ottery St. Mary, Devon, the Right Rev. Henry Callaway, D.D., M.D., &c., first Bishop of St. John's, Kaffraria, in his 74th year.

DIXON.—On Monday, the 31st March, at his residence, Winckley-square, Preston, Edward Livesey Dixon, M.D., M.R.C.P., aged 59.

FAULKNER.—On Jan. 26th, at Hastings, Hawkes Bay, New Zealand, Fanny Antoinette Giesen de Morny, wife of Joseph Faulkner, M.R.C.S.E., L.R.C.P.L., in her 35th year.

HUMBY.—On March 27th, at Hamilton-terrace, N.W., Edwin Humby, M.D., in the 70th year of his age.

POCOCK.—On March 26th, at Church-road, West Brighton, Crawford John Pocock, M.R.C.S., aged 49.

ROSE.—On March 29th, at Dalton, Bournemouth, William Rose, F.R.C.S., late of High Wycombe, in his 77th year.

STABB.—On March 30th, at Croft Lodge, Torquay, William Wilking Stabb, M.R.C.S., aged 60.

WILDE.—On March 27th, at the London Hospital, of typhoid fever, taken in the discharge of his duties as House Physician, R. Gerard Wilde, M.A., M.B., B.C., of Clare College, Cambridge, elder son of the Rev. R. Wilde, H.M. Inspector of Schools, aged 27.

YOUNG.—On March 22nd, at his residence, Castle-street, Reading, William B. Young, M.R.C.S.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, April 7.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, April 8.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. A. E. J. Barker: Study of 50 Cases of Operation for Radical Cure of Non-strangulated Hernia.

Wednesday, April 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—8 P.M. Clinical Evening. Mr. F. R. Humphreys: Cases of Perityphlitis.—Mr. Cotman: Congenital Nystagmus.—Dr. Stowers: Cases of Skin Disease.—Mr. John Poland: Rheumatoid Arthritis in a Child.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Council at 8 P.M. Specimens by Dr. R. T. Smith and Dr. P. Y. Hebert. Dr. W. H. Fenton: On the Removal of a large Myxoma from the Pelvis.

Thursday, April 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, April 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—Living Specimens (at 8 P.M.):—Mr. Bilton Pollard: A case in which Arthrectomy of Knee was performed two years and a half ago: Recovery, with Voluntary Movement of Joint through 90°.—Mr. William Bennett: A case in which a Sarcoma has been removed from the Naso-pharynx three times in twenty-four years. Papers (at 9 P.M.):—Mr. Lawford Knaggs: A case of Hydatid Cyst of the Liver causing serious Displacement of Viscera; Operation; Death.—Mr. G. A. Hawkins Ambler and Mr. Lawford Knaggs: A case of Acute Diffuse Suppurative Peritonitis successfully treated by Laparotomy and Drainage, but without Irrigation.—Mr. W. H. Battle: A case of Tubercular Ulceration of the Bladder; Suprapubic Cystotomy; Recovery.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Board-room, West London Hospital).—8 P.M. Pathological Specimens by Mr. H. P. Dunn. Dr. Inglis Parsons: A case of Cancer of the Breast arrested by Electricity for a year and eight months.—Dr. Coleman: Unconscious Automatic Acts occurring during Epileptic Fits.—Dr. Colcott Fox: The Urticaria of Infancy and Childhood.

Saturday, April 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 2nd, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Mar. 27	30·05	W.	52	51	74	55	48	..	Overcast
,, 28	30·09	S.W.	56	54	97	67	52	..	Overcast
,, 29	29·89	S.W.	53	49	84	59	49	..	Bright
,, 30	30·13	W.	48	44	91	67	41	..	Bright
,, 31	30·26	E.	47	42	94	54	40	..	Bright
Apr. 1	30·38	E.	42	39	81	51	38	..	Overcast
,, 2	30·20	E.	42	38	89	51	37	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

SECTARIANISM IN HOSPITALS.

THE Nonconformists of Bath are protesting against an advertisement for a nurse, one stipulation being that she be a member of the Church of England. It is a pity to excite such controversies, the only essentials being that a nurse should know her work, and be likely to do it thoroughly and conscientiously.

Enquirer, M.R.C.S., might try the following:—Resorcin, gr. xx.; sulph. sublim. gr. x.; lanolin, ʒiii.; ol. amygd. dulc., ʒiii.; adip. benz., ʒii.; ol. lavand., ♏ vi. To be rubbed into the scalp every night at first, and after three weeks twice a week. Cleanse the hair when necessary with a liniment composed of sap. mol., ℥i., and eau-de-Cologne, ℥i.; and then use a pomade, after the washing, of hyd. perch., gr. ½, and lanolin, oil, and lard to the ounce, as described above.

R. B. K.—Dr. Charteris's book, "Health Resorts at Home and Abroad," published by Messrs. Churchill, will probably meet the requirements of our correspondent.

Mr. W. M. Gibaut.—Our correspondent had better communicate with the author of the paper, who would no doubt afford the information required.

TYPHOID FEVER OCCURRING IN A PHTHISICAL SUBJECT.

To the Editors of THE LANCET.

SIRS,—The case published by Dr. Shaw in THE LANCET of to-day recalls to my memory one which I saw nearly twenty years since. A young gentleman had been sent abroad for his health, and had had severe hæmoptysis on several occasions previously to the attack of typhoid for which I attended him. He made a good recovery. I saw him about ten years subsequently, he being still phthisical. I heard of his marriage a couple of years ago; and as I have not heard of his death since, I conclude that he is still in the land of the living. In his case circumstances were very different from those of Dr. Shaw's patient. Ample means enabled my patient to go to every health resort which was thought desirable, and to take long sea voyages. Perhaps the only remarkable feature in his case was that he had an excellent appetite, which never failed him. When I last saw him he was anæmic, and complained much of cold. I am, Sirs, yours faithfully,

Brighton, March 15th, 1890. J. A. MENZIES, M.D.Ed. & Paris.

NEEDLES OF HYPODERMIC SYRINGES.

To the Editors of THE LANCET.

SIRS,—Some periodical gave directions how to clean the rust from the inside of the above when they get corroded, but I cannot find the same. If someone could supply me with directions, or refer me to the paragraph, I should esteem it a favour.—I am, Sirs, yours faithfully,

March 29th, 1890. M.D.

THE RECOGNITION OF FOREIGN DIPLOMAS.

Scrutator.—We are not aware of the denunciation of all foreigners holding medical degrees. The statement which our correspondent characterises as untrue is absolutely true, so far as enabling legislation on the part of England is concerned. We do not mean, of course, that *all* degrees are to be indiscriminately recognised, either of the United States or other countries. A distinguished graduate in the States, Dr. Billings, has well shown some difficulties in the following words in his evidence before the Royal Commission: "It would be rather difficult, I fancy, for the General Medical Council to inquire into the character of the examinations of the American schools. There are a great many of them, and of all grades; and in the majority of the States any three, or four, or five men who choose to associate themselves together and expend a very small sum of money (£15 or £20, perhaps, paid to a lawyer to conduct the matter) can obtain a charter from the State, which will empower them to act as a medical school and confer the degree of Doctor of Medicine. Consequently, there are numbers of such schools being constantly formed." But there is not likely to be any serious difficulty on the part of England in the recognition of the "reputable degrees" of the United States.

Mr. Geoffrey Stead.—We regret that we can assist our correspondent only by referring him to our advertising columns.

EXAMINATION OF TEETH AT THE GENERAL POST OFFICE.

To the Editors of THE LANCET.

SIRS,—As I think you will deem the accompanying copy of a letter sent by me to the Postmaster-General of sufficient importance, I shall be much obliged if you will kindly insert it in THE LANCET, together with the letter received by me in reply.

I am, Sirs, yours faithfully,

Endsleigh-gardens, N.W., March 27th, 1890. PERCY MAY.

"Endsleigh-gardens, N.W., March 19th, 1890.

"SIR,—It has long been a source of astonishment to me that the General Post Office of London should not have a qualified dental surgeon attached to it. When a young man or boy presents himself for posts in that Department his mouth is examined by the medical officer; and if the candidate is discovered to have any decayed teeth, a certificate is given to him to take to a dentist, with the request that the latter will do what is requisite, and sign the paper certifying that the necessary operations have been performed and the mouth is in a satisfactory condition. This seems very well at first sight; but I am told by the Post Office *employés* that there is a difficulty in obtaining a letter to the dental hospital, and that when they do get one they have to wait their turn with the other patients, and so much time is occupied in filling perhaps as many as half a dozen or even more teeth of a candidate, that another who has the good fortune to possess sound ones is accepted over him.

"It is my custom to see patients gratuitously, and perform extractions for them from 9 to 10 daily, and I am continually being called upon by poor applicants to remove some of the worst decayed teeth and to sign their certificates, which is, of course, out of the question for any medical man to do, knowing how important an element teeth are for digestion and general health. Only the other day a youth came with eight teeth extensively decayed, and wished me to extract four upper molars, which, if I had been barbarous enough to do, would have caused infinitely more injury to the health than their remaining could do even if unstopped.

"It is doubtless perfectly right of the Post Office officials to be particular in so important a matter; but it appears to me that they should go a step farther, and give a little more facility for the performance of their demand, or otherwise they will defeat their own object, and at the same time put temptation in the way of the poor young fellows by compelling them to go to unprincipled men, who will sign their certificates when only part of the requirements have been carried out.

"Yours faithfully,

"PERCY MAY, M.R.C.S. & L.D.S.Edin."

"General Post Office, London, March 28th, 1890.

"SIR,—In reply to your letter of the 19th instant I am directed by the Postmaster-General to thank you for your renewed suggestion on the subject of the appointment of a dental surgeon to the Department, and to inform you that the present arrangements are found to work satisfactorily, and that no alteration is contemplated at present.

"I am, Sir, your obedient servant,

"Percy May, Esq." "H. JOYCE."

THE MOON FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following subscriptions to this fund in your next issue. The list is now closed.

I am, Sirs, yours faithfully,

PETER HORROCKS, M.D.,

St. Thomas's-street, S.E., March 31st, 1890. Hon. Treasurer.

William Carter, M.D.	..	£5	5	0	Chauncy Puzey, M.R.C.S.	£0	10	6
J. C. Steele, M.D.	..	2	2	0	Robert Jones, F.R.C.S.	0	10	6
Roland F. Cox, L.R.C.P.		1	1	0	H. Harvey, M.B.	0	10	6
H. G. Rawdon, F.R.C.S.		0	10	6				

A QUERY.

To the Editors of THE LANCET.

SIRS,—Can any of your readers supply me through the columns of THE LANCET with any information or reference to literature respecting the influence of fish in keeping down the growth of weeds in reservoirs of water for town supply?—I am, Sirs, yours truly,

April 1st, 1890. F. C. H. PIGGOTT, M.O.H.

THE FASTING MAN.

Mr. G. N. Robins, M.R.C.S., L.R.C.P.Ed., writes: "Signor Succi has [at the end of his second week's fast] lost in weight 18 lb. 12 oz., yet his muscular strength is apparently unaltered. He sleeps soundly, and, saving that he is getting very emaciated in appearance, is apparently none the worse for his experiments. The urea excreted is now considerably less than half the original amount—in itself a proof of the absence of nitrogenous food materials."

Mr. E. A. Nuttall.—We have read the report of the inquest sent to us, and can only say that it is matter of regret that the proceedings were not carried on more harmoniously. No doubt it is the duty of a medical man to acquaint the police or the coroner whenever a patient who has been under his care has died from the effects of an alleged injury. We have always strongly advocated the making of post-mortem examinations whenever the cause of death is not reasonably clear. In this case, however, we do not think a necropsy was necessary. Sudden paraplegia following a fall from a height may or may not be due primarily to fracture of the spine, but proximately it is obviously due to the effects of injury to the spinal cord. To satisfy the ends of justice it is not requisite that the exact method of dying—whether from shock, pneumonia, or urinary disturbance—should be ascertained.

Dr. Percy G. Lewis is thanked for his communication. But we are of opinion that in such an argument he should go a little more into particulars. There are most essential differences between our ordinary hospitals and Poor-law infirmaries, which are to be taken into consideration before we should like to publish a comparison to the disadvantage of general hospitals.

M.D.—It is not within our province to reply to such a question.

Mr. C. Wild.—The event was announced in our last issue.

C. G. G.—We have not heard of such a work.

J. H. D.—Certainly not.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Stanmore Bishop; Surgeon-General Cornish, London; Dr. J. H. Thompson, Manchester; Dr. E. B. Hicks, Easingwold; Dr. Sherrington; Dr. G. Fleming, London; Mr. Piggott, Brookside; Dr. Roy; Mr. Roberts, Lewisham; Mr. Constable; Mr. Binks, Wakefield; Dr. J. R. Bailey; Mr. Dixon, Umballa; Dr. Blair, Goole; Messrs. Wright, Darn, and Co., London; Mr. Nethercliffe, Canterbury; Messrs. Maythorn and Son, Biggleswade; Mr. Marcy, Worcester; Messrs. Burgoyne and Co., London; Mr. P. J. Duncan, London; Herren Boehringer und Söhne, Waldhof; Mr. P. May, London; Mr. Mitra; Messrs. Allen and Hanburys, London; Dr. J. Johnstone, London; Messrs. Bush and Co., London; Surgeon-Major Lawrie, Hyderabad; Mr. Reginald Harrison, Liverpool; Commandante Griffith, Guatemala; Dr. Ward Cousins, Southsea; Dr. Draper, Huddersfield; Messrs. Wright and Co., Bristol; Rev. J. Gibson; Mr. Langhorn, Millicent; Mr. Cooper Harrison; Dr. Holman, Reigate; Dr. Kirk, Partick; Messrs. Ward and Hirst, Halifax; Mr. A. Stewart, Huddersfield; Messrs. Goddard and Co., Notts; Mr. Robins, London; Mr. Blair, Leeds; Dr. Norman Kerr, London; Mr. Gibaut, Jersey; Dr. Kisch, Prague; Messrs. Van Houten and Zoon, Holland; Dr. Bakewell, Auckland; Messrs. Reid and Donald, Perth; Mr. Freeman, London; Mr. Fotherby, London; Mr. J. E. Square, Plymouth; Mr. A. Wright, Romford; Dr. H. Fox, London; Mr. Stonham, London; Dr. Newman, Stamford; Mr. J. M. Richards, London; Dr. G. Harley, London; Mr. Somerville, Edinburgh; Dr. Horrocks, London; Dr. Hodgetts, Toronto; Mr. H. Sell, London; Mr. Parsons, London; Mr. Whittle, Liverpool; Mr. Ricker, St. Petersburg; Mr. Pant, India; M. Lorette, Paris; Messrs. Eason and Son, Dublin; Dr. S. C. Smith, Halifax; Dr. Swaby Smith, Herne Hill; Dr. Macdonnell, London; Surgeon-Major Ranking, Tunbridge Wells; Mr. C. H. Miles, Stantonbury; Mr. G. Stead; Mr. Cameron Kidd, Bromsgrove; Surgeon-General Hutchinson, Bedford; Mr. Mayo Collier, London; Mr. H. Lee, London; Dr. Luff; Messrs. Lee and Martin, Birmingham; Dr. A. Mguliaff, Brenkelen; Messrs. Porteous and Co., Glasgow; Mr. J. W. Taylor, Birmingham; Messrs. Adams and Francis, London; Mons. Corraquois, London; Messrs. Margrave Bros., Llanelly; Mr. Jecks, London; Mr. Watt, Dundee; Messrs. Green and Jolly, Birmingham; Dr. Rentoul, Liverpool; Messrs. Blondeau et Cie., London; Dr. Buchanan, Glasgow; Messrs. Legal, British Columbia; Mr. Posener, London; Mrs. Levick, Paris; Messrs. Street Bros., London; Mr. Mead, Whitby; Mr. Browne; Dr. Lyons, Fence Houses; Dr. Tate, Nottingham; C. G. G.; Ainger; Æsculap Bitter Water Co., London; H. S.; M.D.; R. B. K.; Secretary, Manchester Royal Infirmary; W. B. D., Radnor; M.; Secretary, Macclesfield General Infirmary; R. H. P., Oswestry; Secretary, Yorkshire College, Leeds; Secretary, Wigan Infirmary; Secretary, Stanley Hospital, Liverpool; Sine Diploma.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Sudbury; Dr. Humphreys, Montgomeryshire; Messrs. W. H. Smith and Son, Liverpool; Mr. Crassweller, Highbury; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Heywood, Itchin; Dr. Skrimshire, Holt; Mr. Peddie, Staffs; Mr. Symonds, Newbury; Dr. Bowen-Davies, Radnorshire; Mr. Griffiths, Eastry; Mr. Orchard, Dublin; Mr. Weir, Evershot; Dr. Norwich, Norwich; Mr. Tully, Hastings; Dr. Palmer, Newton; Mr. Hornibrook, Bloomsbury; Mr. Morgan, Carnarvonshire; Mr. O'Connell, Limerick; Mr. Danaher, Oldham; Mr. Wallace, Leicester; Mr. Nicholls, Suffolk; Mr. Appleton, London; Mr. Irving, Stoke-on-Trent; Mr. Matthews, Middlesbro'; Messrs. Fletcher and Fletcher, Holloway; Mr. Sanderson, Brighton; Messrs. Reynolds and Branson, Leeds; Dr. Paterson, Buxton; Mr. Spence, Newcastle-on-Tyne; Mr. Elliott, Edinburgh; Mr. Huggins, London; Miss Laudale, Bannockburn; Rev. Mr. Wake, Kensington; Mr. Thompson, West Drayton; Mr. Evans, Radnor; Mr. Curtis, Grimsby; Messrs. Hooper and Co., Pall Mall; Mr. Tribuble, Enniskillen; Mr. Busteed, West Brompton; Mr. Pring, Glo cester; Dr. Junk; Mr. Faulkner, New Zealand; Mr. Purland, Woolwich; Mr. Henson, Hull; Mr. Dowling, Manchester; Mrs. Dixon, Preston; Mr. Heeland, Preston; Mr. Thin, Edinburgh; Mr. Heywood, Manchester; Mr. Harrison, Westminster; Mr. Crawshaw, Ramsbottom Mr. Moulson, Sheffield; Miss Powles, Suffolk; Mr. Pierce, Denbigh; Mr. Stenhouse, Glasgow; Mr. Coulson, South Shields; M. X., London; X., Harlesden; E. F., London; A. D. D., London; Medico, Folkestone; Secretary, Burton-on-Trent Infirmary; Surgeon A., London; E. C. B., London; Medical Supply Association, Edinburgh; M., London; P., Sheffield; Secretary, Miller Hospital, Greenwich; Alpha, Cheshire; Medicus, London; Medicus, Durham; Medical Psychological Association, Dartford; Na Nonna, London; Thesis, London; Delta, London; M.D., London; O. O. P., London; Cymro, London; Cantab., London; Verax, London; T. B. Landport; L., Sheffield.

NEWSPAPERS.—*The Schoolmaster, Edinburgh Evening Dispatch, Mining Journal, Christian Age, Reading Mercury, Weekly Free Press, Sunday Times, Christian Million, Hertfordshire Mercury, New York Herald (London), Sheffield Daily Telegraph, Kilkenny Journal, Local Government Chronicle, City Press, Builder, Metropolitan, St. James's Gazette, Temperance Chronicle, Broad Arrow, Chemist and Druggist, Windsor and Eton Express, West Middlesex Standard, Bucks Herald, Colonial Standard and Jamaica Dispatch, Surrey Advertiser, Alliance News, Ormskirk Advertiser, West Middlesex Advertiser, Rock, Manchester Examiner, Watford Observer, Echo, Transvaal Mining Argus, Bournemouth Visitors' Directory, Bristol Mercury, Liverpool Daily Post, Leeds Mercury, Agricultural Economist, Women's Suffrage Journal, Belfast News Letter, Birmingham Daily Gazette, Liverpool Echo, Manchester Evening Mail, Liverpool Courier, English Mechanic, Newcastle Daily Chronicle, &c.*, have been received.

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